



REPLACE CHILLED WATER COILS AT THE FORD HOUSE OFFICE BUILDING

August 1, 2005

Architect of the Capitol
United States Capitol
Washington, D.C. - 20515

PROJECT MANUAL

Table of Contents

VOLUME I - BUSINESS

Solicitation, Offer, Award Form

The Schedule

General Conditions

Supplementary Conditions

Representations and Certifications

Solicitation Conditions

VOLUME II - TECHNICAL

Specifications

ATTACHMENTS

ISSUED BY: ARCHITECT OF THE CAPITOL

**REPLACEMENT OF CHILLED WATER COILS IN THE FORD HOUSE OFFICE BUILDING,
WASHINGTON, DC**

TABLE OF CONTENTS

VOLUME I - BUSINESS

Section No.	No. of Pages
SOLICITATION, OFFER, AND AWARD	2
THE SCHEDULE	1
00700 GENERAL CONDITIONS	42
00800 SUPPLEMENTARY CONDITIONS	6
REPRESENTATIONS, CERTIFICATIONS, AND OTHER STATEMENTS OF OFFERORS	6
SOLICITATION CONDITIONS	11

VOLUME II - TECHNICAL

Division No.	No. of Pages
00001 SCOPE OF WORK/PROJECT OVERVIEW	4
01000 GENERAL REQUIREMENTS	26
15050 BASIC MATERIALS AND METHODS	4
15080 THERMAL INSULATION FOR MECHANICAL SYSTEMS	12
15181 CHILLED, CHILLED-HOT, AND CONDENSER WATER PIPING SYSTEM	17
15216 WELDING PRESSURE PIPING	13
15720 AIR HANDLING UNITS	4

ATTACHMENTS

Attachment	No. of Pages
(1) GENERAL DECISION NUMBER DC20030003, MODIFICATION NO. 27 (JULY 22, 2005)	6
(2) BID BOND	1
(3) ACH VENDOR PAYMENT FORM (to be submitted by awardee only)	2
(4) U.S. CAPITOL POLICE REQUEST FOR CHECK OF CRIMINAL HISTORY RECORDS (for informational purposes only)	1

VOLUME I

BUSINESS

SOLICITATION, OFFER, AND AWARD <i>(Construction, Alteration, or Repair)</i> January 2004	1. SOLICITATION NO.	2. TYPE OF SOLICITATION	3. DATE ISSUED	PAGE OF PAGES	
	RFP NO. 050094	____ SEALED BID (IFB) <u>XX</u> NEGOTIATED (RFP)	August 1, 2005	1	2

IMPORTANT - The "offer" section on page 2 of 2 must be fully completed by offeror.

4. CONTRACT NO.		5. REQUISITION NO. SB050348	6. PROJECT NO.
7. ISSUED BY ARCHITECT OF THE CAPITOL United States Capitol Washington, D.C. 20515		8. ADDRESS OFFER TO (Note - All handcarried offers/bids will be rejected) Architect of the Capitol Procurement Division Ford House Office Building Attn: Chris Lindsay Room H2-263 Bid Room Second and "D" Streets, S.W. Washington, DC 20515	
9. FOR INFORMATION CALL:		A. NAME Chris Lindsay	B. TELEPHONE NO. (Include area code) (NO COLLECT CALLS) (202) 226- 0994

SOLICITATION

NOTE: In sealed bid solicitations "offer" and "offeror" mean "bid" and "bidder".

SUBJECT: REPLACE CHILLED WATER COILS AT THE FORD HOUSE OFFICE BUILDING , WASHINGTON, DC

10. THE GOVERNMENT REQUIRES PERFORMANCE OF THE WORK DESCRIBED IN THESE DOCUMENTS (Title, identifying no., date):

- A SITE VISIT AND PRE-BID CONFERENCE WILL BE CONDUCTED ON AUGUST 17, 2005 AT 10:00 A.M AT THE FORD HOUSE OFFICE BUILDING. ADDITIONAL INFORMATION is located in the article entitled "VISIT TO THE SITE OF THE WORK ", PAGE 10, IN THE SOLICITATION CONDITIONS.**
- The Offeror's attention is directed to the "SUPPLEMENTARY CONDITIONS", 2. SUBMITTALS, which will be strictly enforced.**

11. The CONTRACTOR shall complete performance within 120 calendar days after Notice of Award. See Supplemental Conditions, article entitled "CONTRACT TIME".

12. The CONTRACTOR must furnish any required performance, payment bonds and insurance: X YES NO. If YES, within 20 calendar days after award.

13. ADDITIONAL SOLICITATION REQUIREMENTS:

A. Sealed offers in original and 2 copies to perform the work required are due at the place specified in Item 8 by 1:00 p.m. (hour) local time September 7, 2005 (date). If this is a sealed bid solicitation, offers must be publicly opened at that time. Sealed envelopes containing offers shall be marked to show the offeror's name and address, the solicitation number, and the date and time offers are due.

B. An offer guarantee X is, _____ is not required.

C. All offers are subject to the (1) work requirements, and (2) other provisions and clauses incorporated in the solicitation in full text or by reference.

D. Offers providing less than 60 Calendar days for Government acceptance after the date offers are due will not be considered and will be rejected.

OFFER (Must be fully completed by offeror)

14. NAME AND ADDRESS OF OFFEROR (Include ZIP Code)

DUNS NO. _____ TIN _____

15. TELEPHONE & FACSIMILE NOS. (Include area codes)

16. REMITTANCE ADDRESS (Include only if different than Item 14)

17. The offeror agrees to perform the work required at the prices specified in the Schedule in strict accordance with the terms of this solicitation, if this offer is accepted by the Government in writing within 60 calendar days after the date offers are due.

18. The Offeror agrees to furnish any required performance, payment bonds and insurance.

19. ACKNOWLEDGMENT OF AMENDMENTS

(The offeror acknowledges receipt of amendments to the solicitation - give number and date of each)

AMENDMENT NO.										
DATE										
20A. NAME AND TITLE OF PERSON AUTHORIZED TO SIGN OFFER (Type or print)				20B. SIGNATURE					20C. OFFER DATE	

AWARD (To be completed by Government)

21. ITEMS ACCEPTED:

22. AMOUNT

23. ACCOUNTING AND APPROPRIATION

24. SUBMIT INVOICES TO ADDRESS SHOWN IN ITEM 27

(In Triplicate)

25. AUTHORITY FOR NEGOTIATION, IF APPLICABLE

26. ADMINISTERED BY:

CODE _____

27. PAYMENT WILL BE MADE BY:

ARCHITECT OF THE CAPITOL
Ford House Office Building
Accounting Office, Room H2-205
Washington, D.C. 20024

CONTRACTING OFFICER WILL COMPLETE ITEM 28 OR 29 AS APPLICABLE

____ 28. NEGOTIATED AGREEMENT (Contractor is required to sign this document and return _____ copies to issuing office.) Contractor agrees to furnish and deliver all items or perform all work, requisitions identified on this form and any continuation sheets for the consideration stated in the contract. The rights and obligations of the parties to this contract shall be governed by (a) this contract award, (b) the solicitation, and (c) the clauses, requirements, certifications, and specifications or incorporated by reference in or attached to this contract.

____ 29. AWARD (Contractor is not required to sign this document.) Your offer on this solicitation, is hereby accepted as to the items listed. This award consummates the contract, which consists of (a) the government solicitation and your offer, and (b) this contract award. No further contractual document is necessary.

30A. NAME AND TITLE OF CONTRACTOR OR PERSON AUTHORIZED TO SIGN
(Type or print)

31A. NAME OF CONTRACTING OFFICER (Type or print)

CHRISTIAN C.S. LINDSAY
CONTRACTING OFFICER

30B. SIGNATURE

30C. DATE

31B. UNITED STATES OF AMERICA

31C. AWARD DATE

BY:

THE SCHEDULE

SUPPLIES OR SERVICES AND PRICES/COSTS FOR CONSTRUCTION

The Contractor shall furnish all supplies, equipment, personnel and services necessary for the Replacement of Chilled Water Coils at the Ford House Office Building , Washington, D.C. (see the SPECIFICATIONS AND THE CONTRACT DRAWINGS) as required by the Architect of the Capitol.

1. SCHEDULE OF ITEMS

<u>ITEM</u>	<u>DESCRIPTION</u>	<u>QTY.</u>	<u>U/M</u>	<u>PRICE</u>
0001	Replacement of chilled water coils in air handling unit (AHU) #8 with government furnished coils and replacing the coils in AHU #7.	1	JOB	\$_____

OPTIONS:

0002	Replacement of chilled water coils in AHU #4.	1	JOB	\$_____
0003	Replacement of chilled water coils in AHU #6.	1	JOB	\$_____
0004	Replacement of chilled water coils in AHU #1.	1	JOB	\$_____
0005	Replacement of chilled water coils in AHU #2.	1	JOB	\$_____
0006	Replacement of chilled water coils in AHU #3.	1	JOB	\$_____
0007	Replacement of chilled water coils in AHU #5.	1	JOB	\$_____

TOTAL PRICE INCLUDING OPTIONS	\$_____
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2. EXERCISE OF OPTIONS

- (a) For Line Items 0002 through 0007 the AOC will decide which to exercise at time of contract award subject to the availability of funds.
- (b) All work, to include the exercise of any option(s) is required to be completed within the completion date specified in AOC52.211-5 COMMENCEMENT, PROSECUTION AND COMPLETION OF WORK in the SUPPLEMENTARY CONDITIONS. In addition the exercise of these options may require a change to the Contractor's Schedule.

END OF SCHEDULE

GENERAL CONDITIONS

TABLE OF CONTENTS

AOC52.202-2	DEFINITIONS - CONSTRUCTION
AOC52.203-1	ADVERTISING/PROMOTIONAL MATERIALS
AOC52.203-2	DISCLOSURE OF INFORMATION TO THE GENERAL PUBLIC
AOC52.204-1	PRINTED OR COPIED DOUBLE-SIDED ON RECYCLED PAPER
AOC52.211-3	DEFICIENCIES IN CONTRACT DOCUMENTS
AOC52.211-6	NOTICE TO PROCEED
AOC52.215-10	EXAMINATION OF RECORDS
AOC52.215-11	AUDITS
AOC52.216-6	UNDEFINITIZED CONTRACT ACTIONS
AOC52.219-1	UTILIZATION OF SMALL BUSINESS CONCERNS
AOC52.222-1	OVERTIME WORK - CONSTRUCTION
AOC52.222-3	CONVICT LABOR
AOC52.222-7	WORKMEN'S COMPENSATION LAWS
FAR 52.223-3	HAZARDOUS MATERIAL IDENTIFICATION AND MATERIAL SAFETY DATA ALTERNATE I
AOC52.223-1 -	HAZARDOUS MATERIAL IDENTIFICATION AND MATERIAL SAFETY DATA SUPPLEMENT
AOC52.223-3	SECURITY MARKINGS
AOC52.223-4	TRANSMISSION OR POSTING OF DRAWINGS/SPECIFICATIONS
FAR 52.225-9	BUY AMERICAN ACT- CONSTRUCTION MATERIALS

AOC52.225-1	BUY AMERICAN ACT - SUPPLEMENT
AOC 52.228-2	INSURANCE - WORK ON A GOVERNMENT INSTALLATION
AOC52.228-5	PERFORMANCE AND PAYMENT BONDS - CONSTRUCTION
AOC52.228-6	NOTICE TO SURETIES
AOC52.232-4	PAYMENTS - CONSTRUCTION
AOC52.232-6	PAYMENT BY ELECTRONIC FUNDS TRANSFER - OTHER THAN CENTRAL CONTRACTOR REGISTRATION
AOC52.232-9	PAYMENT OF INTEREST ON CONTRACTOR CLAIMS
AOC52.232-12	ASSIGNMENT - SUPPLEMENT
AOC52.233-1	DISPUTES
AOC52.233-2	CLAIMS FOR EQUITABLE ADJUSTMENTS - WAIVER AND RELEASE OF CLAIMS
AOC52.233-3	LIMITATION ON DAMAGES FOR DELAY
FAR 52.236-5	MATERIALS AND WORKMANSHIP
FAR 52.236-9	PROTECTION OF EXISTING VEGETATION, STRUCTURES, EQUIPMENT, UTILITIES, AND IMPROVEMENTS
AOC52.236-1	ACCESS TO WORK
AOC52.236-2	OTHER CONTRACTS AND WORK
AOC52.236-3	ACCIDENT PREVENTION AND SAFETY AND HEALTH PROGRAMS - CONSTRUCTION
AOC52.236-4	CUTTING AND PATCHING
AOC52.236-5	CLEANING AND RESTORING
AOC52.236-8	SCHEDULING OF WORK

AOC52.236-9	SCHEDULE OF VALUES
AOC52.236-10	SPECIFICATIONS AND DRAWINGS FOR CONSTRUCTION
AOC52.236-12	PRODUCT DATA AND SAMPLES
FAR 52.242-14	SUSPENSION OF WORK
FAR 52.243-4	CHANGES
AOC52.243-1	CHANGES - SUPPLEMENT
AOC52.244-1	AWARD OF SUBCONTRACTS AND OTHER CONTRACTS FOR PORTIONS OF THE WORK
AOC52.245-2	GOVERNMENT-FURNISHED PROPERTY
AOC52.246-1	FINAL INSPECTION AND ACCEPTANCE - CONSTRUCTION - SUPPLEMENT
AOC52.246-6	ADDITIONAL WARRANTY COVERAGE
FAR 52.252-2	CLAUSES INCORPORATED BY REFERENCE

GENERAL CONDITIONS

AOC52.202-2 DEFINITIONS - CONSTRUCTION (JUN 2004)

- (a) The term “Government” means the United States of America, represented by the Architect of the Capitol, who is the Contracting Officer.
- (b) The term “head of the agency” means the Committee, Commission, or other authority of the Legislative Branch of the Government having final jurisdiction or supervision over the work involved. The “other authority” as used in this paragraph includes the Architect of the Capitol in cases in which he has final jurisdiction or supervision over the work involved.
- (c) The term “Architect” as used in the contract documents shall mean the Architect of the Capitol.
- (d) The term “Contracting Officer” as used in the contract documents means the Architect of the Capitol or his duly authorized representative.
- (e) The term “his duly authorized representative” means any person or persons or board authorized to act for the head of the agency within the scope of their authority.
- (f) The term “Contractor” means the individual, partnership or corporation entering into a contract with the Government to perform the work specified.
- (g) The term “Subcontractor”, as used in this part, means any supplier, distributor, vendor, or firm that furnishes supplies or services to or for a prime contractor or other subcontractor. There is no privity of contract between the Government and the Subcontractors.
- (h) The term “Project Director” means the individual designated by the Architect to monitor the progress of work from a technical standpoint. The duties and responsibilities of the Project Director shall include supervision of scheduling, receipt and verification of Contractor’s payrolls in accordance with the Davis Bacon Act, coordination between Divisions, concerning resolution and/or avoidance of potential problems and, to the extent authorized by the Delegation of Authority, if any, issuance of clarifications, supplemental agreements and change orders to the Contractor.
- (i) The term “contract documents” includes, collectively, the Project Manual, the contract drawings and the addenda and modifications thereto, if any.
- (j) The term “work” includes, but is not limited to, materials, labor, and manufacture and fabrication of components.
- (k) The term “specifications” means the portion of the Contract Documents that consist of the written requirements for materials, equipment, construction systems, standards and workmanship for the Work, and performance of related services.

(l) The term “drawings” means the graphic and pictorial portions of the Contract Documents, wherever located and whenever issued, that show the design, location and dimensions of the Work, and generally includes plans, elevations, sections, details, schedules and diagrams.

(m) Wherever in the specifications or upon the drawings the word “directed,” “required,” “ordered,” “designated,” “prescribed,” or words of like import are used, it shall be understood that the “direction,” “requirement,” “order,” “designation,” or “prescription,” of the Contracting Officer is intended and similarly the words “approved,” “acceptable,” “satisfactory,” or words of like import shall mean “approved by” or “acceptable to,” or “satisfactory to” the Contracting Officer, unless otherwise expressly stated.

(n) Where “as shown,” “as indicated,” “as detailed,” or words of similar import are used, it shall be understood that the reference is made to the drawings accompanying this contract unless stated otherwise. The word “provided” as used herein shall be understood to mean “provide complete in place,” that is “furnished and installed.”

(End of clause)

AOC52.203-1 ADVERTISING/PROMOTIONAL MATERIALS (JUN 2004)

(a) It is the policy of the Congress to discourage contractors providing services and supplies to the Legislative Branch entities, including the Architect of the Capitol, from advertising practices that feature the Capitol and Capitol Complex in a manner in which conveys, or is reasonably calculated to convey, a false impression of sponsorship, approval or endorsement of any product or service by the Congress, the Government of the United States, or any Department, Agency or instrumentality thereof.

(b) Contractors performing construction services for Legislative Branch entities, including the Architect of the Capitol, are discouraged from capitalizing on their contractual relationships with such entities and shall not engage in advertising practices which convey, or are reasonably calculated to convey, a false impression of sponsorship, approval or endorsement of any product or service by the Congress, the Government of the United States, of any Department, Agency or instrumentality thereof. This includes utilizing, in conjunction with the fact of their contractual relationship, images of the Capitol, any other buildings in the Capitol Complex, or any part of the United States Capitol Grounds in their advertising or promotional materials; and/or publishing or disseminating the aforementioned advertising or promotional materials.

(c) The Contractor, by signing this contract, agrees to comply with the foregoing and to submit any proposed advertising or promotional copy connected in any manner with this contract and/or the Capitol, other Capitol Complex Buildings, or the United States Capitol Grounds to the Contracting Officer for approval prior to publication.

(End of clause)

AOC52.203-2 DISCLOSURE OF INFORMATION TO THE GENERAL PUBLIC (JUN 2004)

(a) Promptly after receiving any request from the general public for information on or data derived from this contract, the contractor shall notify the Architect of the Capitol, Procurement Division. The contractor shall

cooperate with the Procurement Division in compiling or collecting information or data if the Architect of the Capitol determines the information or data to be releasable.

(b) “General public”, for purposes of this clause, are those groups or individuals who are not authorized by law or regulation to have access.

(c) This clause is not intended to prevent the contractor from providing contract information or data which the contractor is required to provide in order to conduct its business, such as insurance, banking, subcontracting.

(d) The contractor is permitted to request that proprietary information or data not be released if such release would harm or impair the contractor in conducting its normal business. Such request must be documented with clear and specific grounds for that claim.

(End of clause)

AOC52.204-1 PRINTED OR COPIED DOUBLE-SIDED ON RECYCLED PAPER (JUN 2004)

The Contractor is encouraged to submit paper documents, such as offers, letters, or reports, that are printed or copied doubled-sided on recycled paper and meet minimum content standards when not using electronic commerce methods to submit information or data to the Government.

(End of clause)

AOC52.211-3 DEFICIENCIES IN CONTRACT DOCUMENTS (JUN 2004)

The Contractor shall promptly inform the Contracting Officer, in writing, of any discovered errors, omissions, discrepancies, conflicts or ambiguities in the contract documents before proceeding with any work affected by such factors. Failure to do so will be at the risk of the Contractor.

(End of clause)

AOC52.211-6 NOTICE TO PROCEED (JUN 2004)

A formal notice, or notices, to proceed will be issued as soon as practical, normally after approval by the Contracting Officer of the bonds and insurance. Unless specifically authorized in writing, any steps taken in connection with the performance of, or the preparation to perform, the contract, prior to issuance of the notice to proceed, will be the responsibility of and at the risk of the Contractor, and without any cost whatsoever to the Government.

(End of clause)

AOC52.215-10 EXAMINATION OF RECORDS (JUN 2004)

(a) The Contractor agrees that the Architect of the Capitol or any duly authorized representatives shall, until the expiration of 3 years after final payment under this contract, have access to and the right to examine any books, accounting procedures and practices documents, papers, records and other data regardless of whether such items are in written form, in the form of computer data or in any other form and other supporting evidence, involving transactions related to this contract or compliance with any clause or certification thereunder.

(b) The Contractor further agrees to include in all its subcontracts hereunder a provision to the effect that subcontractor agrees that the Architect of the Capitol or any authorized representatives shall, until the expiration of 3 years after final payment under the subcontract, have access to and the right to examine books, documents, papers, records other data regardless of whether such items are in written form, in the form of computer data or in any other form, and other supporting evidence, involving transactions related to the subcontract or compliance with any clause or certification thereunder.

(c) The term "subcontract" as used in this clause excludes purchase orders not exceeding \$10,000.

(End of clause)

AOC52.215-11 AUDITS (JUN 2005)

(a) If the price of this contract is changed through the operation of any of the provisions of this contract, the Contractor, within such reasonable time as the Contracting Officer may direct, shall submit complete and accurate cost and pricing data in support of any claim asserted under such provisions.

(b) With the submission of cost and pricing data in support of any claim, the Contractor shall supply the following certification by a duly authorized corporate officer, partner, or owner, as applicable:

"This is to certify that, to the best of my knowledge and belief, the cost and pricing data herewith submitted to the Contracting Officer in support of a price adjustment under Supplement/Claim No. for _____ (identify by description) are accurate and complete and they are current as of _____ (date).

Date of Execution _____

Firm _____

Signature _____

Title _____"

(c) The Contracting Officer in accordance with the FAR clause "Audit and Records - Negotiation", 52.215-2, has the right to examine all books, records, documents and other data of the Contractor or subcontractor in order to evaluate the accuracy, completeness, and currency of cost or pricing data thus submitted. The Contractor shall insert an appropriate provision in all subcontracts for the purpose of making the requirements of this paragraph applicable thereto.

(End of clause)

(a) In the event of an urgent situation, the services or supplies may be required on an emergency basis under an undefinitized contract action (emergency task/delivery order, contract modification, or letter contract). The undefinitized contract action may be either verbal, typed, or hand written, with the form of the undefinitized contract action dictated by the access the issuing Contracting Officer has to the AOC network or a computer. If issued verbally, the Contracting Officer shall provide a written confirming document to the location identified by the contractor within 5 calendar days after issuance of the verbal undefinitized contract action. If an undefinitized contract action is issued under an existing contract, the terms and conditions of the contract shall be in effect and automatically incorporated by reference under any undefinitized contract action issued.

(b) The scope of work as originally issued on the contract action will, of necessity, be somewhat broad and general in nature. It is to also be considered as a Notice to Proceed immediately with the work under the undefinitized contract action. An estimated amount for the work to be performed shall be obligated to ensure that reasonable funds are available for payment to the contractor, and an estimated completion date shall be identified on the undefinitized contract action. If the contractor believes the amount of funds obligated or time for completion as stated in the undefinitized contract action are unreasonable, within 30 calendar days after issuance of the written undefinitized contract action the contractor is responsible for notifying the Contracting Officer of this and providing a suggested amount of funds for obligation or time for completion. In no instance shall the contractor's suggested amount of funds for obligation or time for completion be considered as binding to the contractor or the Government in future negotiations. The Government can elect to use the contractor's suggested amount of funds or time for completion as an indication that some additional funds or time for completion may be required and obligated or adjusted, respectively, in order to ensure that reasonably adequate funds are available to pay the contractor for services performed or that the completion time is reasonable .

(c) Within a reasonable amount of time after the issuance of the undefinitized contract action but not later than an estimated 25% of the way through the completion of the work under the undefinitized contract action, an authorized representative of the contractor must meet, either in person or telephonically, with the Contracting Officer to further define the scope of work, negotiate the price, identify a final completion date, and address other activities necessary to definitize the undefinitized contract action. This estimated 25% shall use the best information reasonably available and be based upon (1) an estimate of the amount of work completed relative to the original general scope of work or (2) the amount of payments made relative to the original amount obligated.

(d) Payments can be made from the original amount obligated, but the undefinitized contract action must be definitized before payments exceed 40% of funds originally obligated.

(e) If communications are disrupted to the degree that it is necessary to communicate with the Contracting Officer at their residence or through other devices that do not utilize AOC-owned equipment, i.e., the Contracting Officer's residential telephone line, home address, etc., the contractor shall treat the Contracting

Officer's personal information as confidential and shall not divulge the information to any individual or organization, including but not limited to other AOC personnel, without the Contracting Officer's express written permission. If it becomes necessary for the Contracting Officer to communicate with the contractor through means other than the contractor's normal place of business, i.e., the contractor's residential telephone line or home address, the Contracting Officer shall not divulge the information to any individual or organization, including but not limited to other AOC or contractor personnel, without the contractor's express written permission.

(f) For the purposes of this clause, e-mail is considered express written permission.

(End of clause)

AOC52.219-1 UTILIZATION OF SMALL BUSINESS CONCERNS (AUG 2004)

(a) It is the policy of the Government as declared by the Congress that a fair proportion of the purchases and contracts for supplies and services for the Government be placed with all types of small business concerns as determined by the size standards in 13 CFR 121.

(b) The Contractor agrees to accomplish the maximum amount of subcontracting to all types of small business concerns that the Contractor finds to be consistent with the efficient performance of this contract.

(End of clause)

AOC52.222-1 OVERTIME WORK - CONSTRUCTION (AUG 2004)

No extra reimbursement will be allowed for work performed outside regular working hours or on Saturday, Sundays or holidays and, for work performed in the District of Columbia, Presidential Inauguration Day, unless such work is ordered in writing by the Contracting Officer and payment therefore is authorized in the written order, and provided such work is not otherwise required to be performed under terms of the contract.

(End of clause)

AOC52.222-3 CONVICT LABOR (JUN 2004)

In connection with the performance of work under this contract the Contractor agrees not to employ any person undergoing sentence of imprisonment except as provided by Public Law 89-176, approved September 10, 1965, 18 U.S.C. 4082(c)(2).

(End of clause)

AOC52.222-7 WORKMEN'S COMPENSATION LAWS (JUN 2004)

The Contractor and his subcontractors employed on the site shall comply with the Workmen's Compensation Laws of the District of Columbia.

(End of clause)

**FAR 52.223-3 HAZARDOUS MATERIAL IDENTIFICATION AND MATERIAL SAFETY DATA
(JAN 1997) ALTERNATE I (JULY 1995)**

(a) “Hazardous material” as used in this clause, includes any material defined as hazardous under the latest version of Federal Standard No. 313 (including revisions adopted during the term of the contract).

(b) The offeror must list any hazardous material, as defined in Paragraph (a) of this clause, to be delivered under this contract. The hazardous material shall be properly identified and include any applicable identification number, such as National Stock Number or Special Item Number. This information shall also be included on the Material Safety Data Sheet submitted under this contract.

Material (If none, insert “None”)	Identification No.
_____	_____
_____	_____
_____	_____

(c) This list must be updated during performance of the contract whenever the Contractor determines that any other material to be delivered under this contract is hazardous.

(d) The apparently successful offeror agrees to submit, for each item as required prior to award a “Material Safety Data Sheet”, meeting the requirement of 29 CFR 1910.1200(g) and the latest version of Federal Standard No. 313, for all hazardous material identified in Paragraph (b) of this clause. Data shall be submitted in accordance with Federal Standard No. 313, whether or not the apparently successful offeror is the actual manufacturer of these items. Failure to submit the Material Safety Data Sheet prior to award may result in the apparently successful offeror being considered nonresponsible and ineligible for award.

(e) If, after award, there is a change in the composition of the items(s) or a revision to Federal Standard No. 313, which renders incomplete or inaccurate the data submitted under Paragraph (d) of this clause, the Contractor shall promptly notify the Contracting Officer and resubmit the data.

(f) Neither the requirements of this clause nor any act or failure to act by the Government shall relieve the Contractor of any responsibility or liability for the safety of Government, Contractor, or subcontractor personnel or property.

(g) Nothing contained in this clause shall relieve the Contractor from complying with applicable Federal, State and local laws, codes, ordinances, and regulations (including the obtaining of licenses and permits) in connection with hazardous material.

(h) The Government's rights in data furnished under this contract with respect to hazardous material are as follows:

(1) To use, duplicate and disclose any data to which this clause is applicable. The purposes of this right are to—

(i) Apprise personnel of the hazards to which they may be exposed in using, handling, packaging, transporting, or disposing of hazardous materials;

(ii) Obtain medical treatment for those affected by the material; and

(iii) Have others use, duplicate and disclose the data for the Government for these purposes.

(2) To use, duplicate and disclose data furnished under this clause, in accordance with subparagraph (h)(1) of this clause, in precedence over any other clause of this contract providing for rights in data.

(3) The Government is not precluded from using similar or identical data acquired from other sources.

(i) Except as provided in Paragraph (i)(2), the Contractor shall prepare and submit a sufficient number of Material Safety Data Sheets (MSDS's), meeting the requirements of 29 CFR 1910.1200(g) and the latest version of Federal Standard No. 313, for all hazardous materials identified in Paragraph.(b) of this clause.

(1) For items shipped to consignees, the Contractor shall include a copy of the MSDS's with the packing list or other suitable shipping document which accompanies each shipment. Alternatively, the Contractor is permitted to transmit MSDS's to consignees in advance of receipt of shipments by consignees, if authorized in writing by the Contracting Officer.

(2) For items shipped to consignees identified by mailing address as agency depots, distribution centers or customer supply centers, the Contractor shall provide one copy of the MSDS' in or on each shipping container. If affixed to the outside of each container, the MSDS's must be placed in a weather resistant envelope.

(End of clause)

AOC52.223-1 HAZARDOUS MATERIAL IDENTIFICATION AND MATERIAL SAFETY
DATA - SUPPLEMENT (JUN 2005)

(a) Except as provided in paragraph (c), the Contractor shall prepare and submit a sufficient number of Material Safety Data Sheets (MSDS's), meeting the requirements of 29 CFR 1910.1200(g) and the latest version of Federal Standard No. 313, for all hazardous materials identified in FAR 52.223-3(b).

(b) For items shipped to consignees, the Contractor shall include a copy of the MSDS's with the packing list or other suitable shipping document which accompanies each shipment. Alternatively, the Contractor is

permitted to transmit MSDS's to consignees in advance of receipt of shipments by consignees, if authorized in writing by the Contracting Officer.

(c) For items shipped to consignees identified by mailing address as agency depots, distribution centers or customer supply centers, the Contractor shall provide one copy of the MSDS' in or on each shipping container. If affixed to the outside of each container, the MSDS's must be placed in a weather resistant envelope.

(d) For items provided to a construction site, the Contractor shall provide two copies of each MSDS. One copy shall be provided to the COTR in accordance with the Division 1 submittal requirements, and a second copy shall be kept in an MSDS binder on the job site.

(End of clause)

AOC52.223-3 SECURITY MARKINGS (JUN 2004)

(a) Before dissemination to subcontractors or other personnel, all AOC drawings and electronic copies thereof shall be considered at a minimum to be *sensitive but unclassified* (SBU). The following statement shall be imprinted on *each* page of drawings:

**PROPERTY OF THE UNITED STATES GOVERNMENT
COPYING, DISSEMINATING, OR DISTRIBUTING THESE DRAWINGS, PLANS OR
SPECIFICATIONS TO UNAUTHORIZED USERS IS PROHIBITED
Do not remove this notice
Properly destroy documents when no longer needed**

(b) The following paragraph shall be included on the cover page of the information (such as the cover page on a set of construction drawings and on the cover page of the specifications).

**PROPERTY OF THE UNITED STATES GOVERNMENT
COPYING, DISSEMINATING, OR DISTRIBUTING THESE DRAWINGS, PLANS OR
SPECIFICATIONS TO UNAUTHORIZED USERS IS PROHIBITED
Do not remove this notice
Properly destroy documents when no longer needed**

(End of clause)

AOC52.223-4 TRANSMISSION OR POSTING OF DRAWINGS/SPECIFICATIONS (JUN 2004)

Due to security issues, the contractor is strictly prohibited from placing or transmitting drawings and specifications on the internet or modem without express permission from the Architect of the Capitol.

(End of clause)

(a) *Definitions.* As used in this clause --

“Component” means an article, material, or supply incorporated directly into construction materials.

“Construction material” means an article, material, or supply brought to the construction site by the Contractor or a subcontractor for incorporation into the building or work. The term also includes an item brought to the site preassembled from articles, materials, or supplies. However, emergency life safety systems, such as emergency lighting, fire alarm, and audio evacuation systems, that are discrete systems incorporated into a public building or work and that are produced as complete systems, are evaluated as a single and distinct construction material regardless of when or how the individual parts or components of those systems are delivered to the construction site. Materials purchased directly by the Government are supplies, not construction material.

“Cost of components” means–

(1) For components purchased by the Contractor, the acquisition cost, including transportation costs to the place of incorporation into the construction material product (whether or not such costs are paid to a domestic firm), and any applicable duty (whether or not a duty-free entry certificate is issued); or

(2) For components manufactured by the Contractor, all costs associated with the manufacture of the component, including transportation costs as described in Paragraph (1) of this definition, plus allocable overhead costs, but excluding profit. Cost of components does not include any costs associated with the manufacture of the end product.

“Domestic construction material” means–

(1) An unmanufactured construction material mined or produced in the United States, or

(2) A construction material manufactured in the United States, if the cost of its components mined, produced, or manufactured in the United States exceeds 50 percent of the cost of all its components. Components of foreign origin of the same class or kind for which nonavailability determinations have been made are treated as domestic.

“Foreign construction material” means a construction material other than a domestic construction material.

“United States” means the 50 States, the District of Columbia, and outlying areas

(b) *Domestic preference.* (1) This clause implements the Buy American Act (41 U.S.C. 10a-10d) by providing a preference for domestic construction material. The Contractor shall use only domestic construction material in performing this contract, except as provided in Paragraphs (b)(2) and (b)(3) of this clause.

(2) This requirement does not apply to the construction material or components listed by the Government as follows:

(Contracting Officer to list applicable excepted materials or indicate “None”)

(3) The Contracting Officer may add other foreign construction material to the list in Paragraph (b)(2) of this clause if the Government determines that--

(i) The cost of domestic construction material would be unreasonable. The cost of a particular construction material subject to the requirements of the Buy American Act is unreasonable when the cost of such material exceeds the cost of foreign material by more than 6 percent;

(ii) The application of the restriction of the Buy American Act to a particular construction material would be impracticable or inconsistent with the public interest; or

(iii) The construction material is not mined, produced, or manufactured in the United States in sufficient and reasonably available commercial quantities of a satisfactory quality.

(c) *Request for determination of inapplicability of the Buy American Act.* (1)(i) Any contractor request to use foreign construction material in accordance with Paragraph (b)(3) of this clause shall include adequate information for Government evaluation of the request, including--

(A) A description of the foreign and domestic construction materials;

(B) Unit of measure;

(C) Quantity;

(D) Price;

(E) Time of delivery or availability;

(F) Location of the construction project;

(G) Name and address of the proposed supplier; and

(H) A detailed justification of the reason for use of foreign construction materials cited in accordance with Paragraph (b)(3) of this clause.

(ii) A request based on unreasonable cost shall include a reasonable survey of the market and a completed price comparison table in the format in Paragraph (d) of this clause.

(iii) The price of construction material shall include all delivery costs to the construction site and any applicable duty (whether or not a duty-free certificate may be issued).

(iv) Any Contractor request for a determination submitted after contract award shall explain why the Contractor could not reasonably foresee the need for such determination and could not have requested the determination before contract award. If the Contractor does not submit a satisfactory explanation, the Contracting Officer need not make a determination

(2) If the Government determines after contract award that an exception to the Buy American Act applies and the Contracting Officer and the contractor negotiates adequate consideration, the Contracting Officer will modify the contract to allow use of the foreign construction material. However, when the basis for the exception is the unreasonable price of a domestic construction material, adequate consideration is not less than the differential established in Paragraph (b)(3)(i) of this clause.

(3) Unless the Government determines that an exception to the Buy American Act applies, use of foreign construction material is noncompliant with the Buy American Act or Balance of Payments Program.

(d) *Data.* To permit evaluation of requests under Paragraph (c) of this clause based on unreasonable cost, the Contractor shall include the following information and any applicable supporting data based on the survey of suppliers;

<u>FOREIGN AND DOMESTIC CONSTRUCTION MATERIALS PRICE COMPARISON</u>			
<u>Construction Material</u> <u>Description</u>	<u>Unit of</u> <u>Measure</u>	<u>Quantity</u>	<u>Price</u> <u>(Dollars)*</u>
<u>Item 1:</u>			
Foreign construction material	_____	_____	_____
			—
Domestic construction material	_____	_____	_____
			—
<u>Item 2:</u>			
Foreign construction material	_____	_____	_____
Domestic construction material	_____	_____	_____

[List name, address, telephone number, and contact for suppliers surveyed. Attach copy of response; if oral, attach summary.]

[Include other applicable supporting information.]

[* Include all delivery costs to the construction site and any applicable duty (whether or not a duty-free certificate is issued).]

(End of clause)

AOC52.225-1 BUY AMERICAN ACT - SUPPLEMENT (JUN 2004)

In addition to provisions of the above clause entitled, “Buy American Act”, the General Provisions of the Legislative Branch Appropriations Act provides in part, as follows:

(a) It is the sense of the Congress that, to the greatest extent practicable, all equipment and products purchased with funds made available in the Act should be American-made.

(b) In providing financial assistance to or entering into any contract with, any entity using funds made available in the Act, the head of each Federal Agency, to the greatest extent practicable, shall provide to such entity a notice describing the statement made in Paragraph (a) above, by the Congress.

(End of clause)

AOC 52.228-2 INSURANCE - WORK ON A GOVERNMENT INSTALLATION (SEP 2004)

(a) The Contractor shall, at his own expense, provide and maintain during the entire performance of this contract at least the kinds and minimum amounts of insurance as required in this clause.

(b) Within twenty (20) calendar days after the date of contract award or before commencing work under this contract, whichever is earlier, the Contractor shall notify the Contracting Officer in writing that the required insurance has been obtained. A Certificate of Insurance evidencing the Contractor's compliance with the requirements of this clause, identifying all policies of insurance and sureties proposed for the provision of liability coverage pertinent to the work of the instant contract, including the endorsement required in this paragraph, and manually countersigned by an authorized representative of the insurance company shall be submitted in accordance with the time frame stated in this paragraph. All policies for liability protection, bodily injury, or property damage shall include the United States of America, acting by and through the Architect of the Capitol, as an additional insured with respect to operations under this contract. Each policy of insurance shall contain the following endorsement, which may be attached as a rider:

"It is understood and agreed that the Contractor's Insurance Company or surety shall notify the Architect of the Capitol, in writing, thirty (30) calendar days in advance of the effective date of any reduction in or cancellation of this policy."

(c) Insurance and required minimum liability limits are:

(1) Appropriate bodily injury and property damage liability insurance, with limits of not less than \$500,000 for each occurrence and \$2,000,000 for annual aggregate, including requirements for protection of hoisting and scaffolding operations, when applicable, and servicing areas adjacent to the building;

(2) Automobile bodily injury liability insurance with limits of not less than \$200,000 for each person and \$500,000 for each accident, and property liability insurance, with a limit of not less than \$20,000 for each accident. A combined single limit for these coverages is acceptable; and/or

(3) Workmen's compensation insurance as required by the laws of (1) the District of Columbia for work performed on a Government site located in the District of Columbia; (2) the State of Maryland for work performed on a Government site located in Maryland; or (3) the Commonwealth of Virginia for work performed on a Government site located in Virginia.

(d) The Contractor shall insert the substance of this clause, including this paragraph, in subcontracts under this contract that require work on a Government installation, and shall require subcontractors to provide and maintain the insurance required in this clause. The Contractor shall maintain a copy of all subcontractors'

proofs of required insurance, and shall make copies available to the Contracting Officer upon request.

(End of clause)

AOC52.228-5 PERFORMANCE AND PAYMENT BONDS - CONSTRUCTION (SEP 2004)

(a) *Definitions.* As used in this clause, “original contract price” means the award price of the contract; or, for requirements contracts, the price payable for the estimated total quantity; or, for indefinite-quantity contracts, the price payable for the specified minimum quantity. Original contract price does not include the price of any options, except those options exercised at the time of contract award.

(b) *Amount of required bonds.* Unless the resulting contract price is \$25,000 or less, the successful offeror shall furnish performance and payment bonds to the Contracting Officer as follows:

(1) Performance Bonds: (Standard Form 25). The penal amount of performance bonds at the time of contract award shall be 100 percent of the original contract price.

(2) Payment Bonds: (Standard Form 25-A). The penal amount of payment bonds at the time of contract award shall be 100 percent of the original contract price.

(c) *Additional bond protection.* (1) The Government may require additional performance and payment bond protection if the contract price is increased. The increase in protection generally will equal 100 percent of the increase in contract price.

(2) The Government may secure the additional protection by directing the Contractor to increase the penal amount of the existing bonds or to obtain an additional bond.

(d) *Furnishing executed bonds.* The Contractor shall furnish all executed bonds, including any necessary reinsurance agreements, to the Contracting Officer, within the time period specified in Item 12 of the form entitled, “Solicitation, Offer, and Award (Construction, Alteration, or Repair)” or otherwise specified by the Contracting Officer, but in any event, before starting work.

(e) *Surety or other security for bonds.* The bonds shall be in the form of firm commitment, supported by corporate sureties whose names appear on the list contained in Treasury Department Circular 570, or by other acceptable security such as postal money order, certified check, cashier’s check, irrevocable letter of credit, or, in accordance with Treasury Department regulations, certain bonds or notes of the United States. Treasury Circular 570 is published in the Federal Register or may be obtained from the U.S. Department of Treasury, Financial Management Service, Surety Bond Branch, 401 14th Street, NW, 2nd Floor, West Wing, Washington, DC 20227.

(f) *Notice of subcontractor waiver of protection (40 U.S.C. 270 b(c)).* Any waiver of the right to sue on the payment bond is void unless it is in writing, signed by the person whose right is waived, and executed after such person has first furnished labor or material for use in the performance of the contract.

(End of clause)

AOC52.228-6 NOTICE TO SURETIES (JUN 2004)

The final inspection and acceptance of the work included in this contract shall not be binding or conclusive upon the Government if it shall subsequently appear that the Contractor has willfully or fraudulently, or through collusion with the representatives of the Government in charge of the work, supplied inferior material or workmanship, or has departed from the terms of the contract, or if defects of any kind should develop during the period that the guarantees covering such material and workmanship are in force. In such event, the Government shall have the right, notwithstanding such final acceptance and payment, to have the work removed and to cause the work to be properly performed and satisfactory material supplied to such extent as, in the opinion of the Contracting Officer, may be necessary to finish the work in accordance with the drawings, if any, and specifications, at the expense of the Contractor and the sureties on its bond, and the Government shall have the right to recover against the Contractor and its sureties the cost of such work, together with such other damages as the Government may suffer because of the default of the Contractor in the premises, the same as though such acceptance and final payment had not been made.

(End of clause)

AOC52.232-4 PAYMENTS - CONSTRUCTION (JUN 2004)

(a) *Payment of price.* The Government shall pay the Contractor the contract price as provided in this contract.

(b) *Progress payments.* The Government shall make progress payments monthly as the work proceeds, or at more frequent intervals as determined by the Contracting Officer, or estimates of work accomplished which meets the standards of quality established under the contract, as approved by the Contracting Officer.

(1) The Contractor's request for progress payments shall include the following substantiation:

(i) An itemization of the amounts requested, related to the various elements of work required by the contract covered by the payment requested;

(ii) A listing of the amount included for work performed by each subcontractor under the contract;

(iii) A listing of the total amount of each subcontract under the contract;

(iv) A list of the amounts previously paid to each such subcontractor under the contract; and

(v) Additional supporting data in a form and detail required by the Contracting Officer.

(2) In the preparation of estimates, the Contracting Officer may authorize material delivered on the site and preparatory work done to be taken into consideration. Material delivered to the Contractor at

locations other than the site also may be taken into consideration if--

(i) Consideration is specifically authorized by this contract; and

(ii) The Contractor furnishes satisfactory evidence that it has acquired title to such material and that the material will be used to perform this contract.

(c) *Contractor certification.* Along with each request for progress payments, the Contractor shall furnish the following certification, or payment shall not be made: (However, if the Contractor elects to delete Paragraph (c)(4) from the certification, the certification is still acceptable.)

I hereby certify, to the best of my knowledge and belief, that--

(1) The amounts requested are only for performance in accordance with the specifications, terms, and conditions of the contract;

(2) Payments to subcontractors and suppliers have been made from previous payments received under the contract, and timely payments will be made from the proceeds of the payment covered by this certification.

(3) This request for progress payments does not include any amounts which the prime contractor intends to withhold or retain from a subcontractor or supplier in accordance with the terms and conditions of the subcontract; and

(4) This certification is not to be construed as final acceptance of a subcontractor's performance.

(Title)
(Date)

(d) *Retainage.* In making such progress payments, there shall be retained 10 percent of the estimated amount until final completion and acceptance of all work required by the contract. However, if the Contracting Officer, at any time after 50 percent of the work has been completed, finds that satisfactory progress is being made, he may authorize any of the remaining partial payments to be made in full. Also, whenever the work is substantially complete, the Contracting Officer, if he considers the amount to be retained to be in excess of the amount adequate for the protection of the Government, at his discretion, may release to the Contractor all or a portion of such excess amount. Furthermore, on completion and acceptance of each separate building, public work, or other division of the contract, on which the price is stated separately in the contract, payment may be made therefore without retention of a percentage.

(e) *Title, liability, and reservation of rights.* All material and work covered by progress payments made shall, at the time of payment, become the sole property of the Government, but this shall not be construed as--

(1) Relieving the Contractor from the sole responsibility for all material and work upon which

payments have been made or the restoration of any damaged work; or

(2) Waiving the right of the Government to require the fulfillment of all of the terms of the contract.

(f) *Final payment.* The Government shall pay the amount due the Contractor under this contract after--

(1) Completion and acceptance of all work;

(2) Presentation of a properly executed voucher; and

(3) Presentation of release of all claims against the Government arising by virtue of this contract, other than claims, in stated amounts, that the Contractor has specifically excepted from the operation of the release. A release may also be required of the assignee if the Contractor's claims to amounts payable under this contract has been assigned under the Assignment of Claims Act of 1940 (31 U.S.C. 3727 and 41 U.S.C. 15).

(g) Invoices shall be issued monthly as defined in Paragraph (b) in which services are performed by the Contractor. Properly certified invoices shall be FAXED to the Architect of the Capitol, Accounting Division at (202) 226-2580. Information concerning requirements for payment requisitions must be secured by telephoning the Accounting Officer at (202) 226-2552. Payment will be made on a monthly basis. To assist the AOC in making timely payments, the Contractor is requested to furnish the following additional information on the invoice:

(1) Contract Number;

(2) Name and address of Contractor;

(3) Invoice Date;

(4) Period the payment covers; and

(5) Amount by line item as identified in the Schedule.

(h) Each invoice shall be in accordance with the SCHEDULE OF SUPPLIES OR SERVICES AND PRICES/COSTS FOR CONSTRUCTION completed during the payment period. The Contractor shall keep accurate time records for each of his personnel employed in the work, and information copies of the Contractor's time records (payrolls) shall be submitted with each invoice for payment. Original certified copies of Contractor's payrolls shall have been submitted weekly in arrears to the Contracting Officer in accordance with the Davis Bacon Act.

(i) Payments will be made directly to your financial institution through Direct Deposit/Electronic Funds Transfer (DD/EFT). The Contractor's attention is directed to the requirements of AOC52.232-6, Payment By Electronic Funds Transfer - Other than Central Contractor Registration".

(End of clause)

AOC52.232-6 PAYMENT BY ELECTRONIC FUNDS TRANSFER - OTHER THAN CENTRAL
CONTRACTOR REGISTRATION (JUN 2004)

(a) *Method of payment.* (1) All payments by the Government under this contract shall be made by electronic funds transfer (EFT) except as provided in paragraph (a)(2) of this clause. As used in this clause, the term "EFT" refers to the funds transfer.

(2) In the event the Government is unable to release one or more payments by EFT, the contractor agrees to either--

(i) Accept payment by check or some other mutually agreeable method of payment; or

(ii) Request the Government to delay payment until such time as the Government makes payment by EFT (but see paragraph (d)).

(b) *Mandatory submission of Contractor's EFT information.* (1) The Contractor is required to provide the Government with the information required to make payment by EFT (see paragraph (i) of this clause). The contractor shall provide this information directly to the office designated in paragraph (k) to receive that information (hereafter: "designated office") by three working days after notification of contract award. If not otherwise specified in this contract, the payment office is the designated office for receipt of the contractor's EFT information. If more than one designated office is named for the contract, the contractor shall provide a separate notice to each office. In the event that the EFT information changes, the contractor shall be responsible for providing the updated information to the designated office(s).

(2) If the contractor provides EFT information applicable to multiple contracts, the contractor shall specifically state the applicability of this EFT information in terms acceptable to the designated office. However, EFT information supplied to a designated office shall be applicable only to contracts that identify that designated office as the office to receive EFT information for that contract.

(c) *Mechanisms for EFT payment.* The Government may make payment by EFT through the Automated Clearing House (ACH) network, subject to the rules of the National Automated Clearing House Association. The rules governing Federal payments through the ACH are contained in 31 CFR part 210.

(d) *Suspension of payment.* (1) Notwithstanding the provisions of any other clause of this contract, the Government is not required to make any payment under this contract until after receipt, by the designated payment office, of the correct EFT payment information from the Contractor. Until receipt of the correct EFT information, any invoice or contract financing request shall be deemed not to be a valid invoice.

(2) If the EFT information changes after submission of correct EFT information, the Government shall begin using the changed EFT information no later than the 30 days after its receipt by the designated office to the extent payment is made by EFT. However, the Contractor may request that no further payments be made until the changed EFT information is implemented by the payment office.

(e) *Liability for uncompleted or erroneous transfers.* (1) If an uncompleted or erroneous transfer occurs because the Government failed to use the Contractor-provided EFT information in the correct manner, the Government remains responsible for--

- (i) Making a correct payment; and
- (ii) Recovering any erroneously directed funds.

(2) If an uncompleted or erroneous transfer occurs because Contractor's EFT information was incorrect at the time of Government release or was revised within 30 days of Government release of the EFT payment transaction instruction to the Federal Reserve System, and

(i) If the funds are no longer under the control of the payment office, the Government is deemed to have made payment and the Contractor is responsible for recovery of any erroneously directed funds; or

(ii) If the funds remain under the control of the payment office, the Government shall not make payment and the provisions of paragraph (d) shall apply.

(f) *EFT and assignment of claims.* If the contractor assigns the proceeds of this contract as provided for in the assignment of claims terms of this contract, the contractor shall require as a condition of any such assignment that the assignee shall provide the EFT information required by paragraph (i) of this clause to the designated office and shall be paid by EFT in accordance with the terms of this clause. In all respects, the requirements of this clause shall apply to the assignee as if it were the contractor. EFT information that shows the ultimate recipient of the transfer to be other than the contractor, in the absence of a proper assignment of claims acceptable to the Government, is incorrect EFT information within the meaning of Paragraph (d) of this clause.

(g) *Liability for change of EFT information by financial agent.* The Government is not liable for errors resulting from changes to EFT information provided by the contractor's financial agent.

(h) *Payment information.* The payment or disbursing office shall forward to the Contractor available payment information that is suitable for transmission as of the date of release of the EFT instruction to the Federal Reserve System. The Government may request the Contractor to designate a desired format and method(s) for delivery of payment information from a list of formats and methods the payment office is capable of executing. However, the Government does not guarantee that any particular format or method of delivery is available at any particular payment office and retains the latitude to use the format and delivery method most convenient to the Government. If the Government makes payment by check in accordance with paragraph (a) of this clause, the Government shall mail the payment information to the remittance address in the contract.

(i) *EFT Information.* The contractor shall provide the following information to the designated payment office. The contractor may supply this data for this or multiple contracts (see paragraph (b) of this clause). The Contractor shall designate a single financial agent per contract capable of receiving and processing the

EFT information using the EFT methods described in paragraph (c) of this clause. The information required is as follows:

- (1) The contract number;
 - (2) The contractor's name and remittance address as stated in the contract(s);
 - (3) The signature (manual or electronic, as appropriate), title, and telephone number of the contractor's official authorized to provide this information;
 - (4) The name, address, and 9-digit Routing Transit Number of the contractor's financial agent; and
 - (5) The contractor's account number and the type of account (checking, saving or lockbox).
- (j) The Contractor shall send all EFT information, and any changes to EFT information to the office designated in paragraph (k) of this clause. The Contractor shall not send EFT information to the payment office, or any other office than that designated in paragraph (k). The Government need not use any EFT information sent to any office other than that designated in paragraph (k).

(k) Designated office:

Name:

Architect of the Capital

Accounting Division

Mailing Address:

2nd and D Streets SW

Ford House Office Building

Washington, DC 20515

Telephone:

(202) 226-2552

Facsimile:

(202) 225-7321

(End of clause)

AOC52.232-9 PAYMENT OF INTEREST ON CONTRACTOR CLAIMS (JUN 2004)

(a) If an appeal is filed by the Contractor from a final decision of the Contracting Officer under the Disputes paragraph of this contract, denying a claim arising under the contract, simple interest on the amount of the claim finally determined owed by the Government shall be payable to the Contractor. Such interest shall be at the rate determined by the Secretary of the Treasury pursuant to Public Law 92-41, 85 Stat. 97, from the date the Contractor furnishes to the Contracting Officer his written appeal under the Disputes paragraph of this contract, to the date of (1) a final judgement by a court of competent jurisdiction, or (2) mailing to the Contractor of a change order, or a supplemental agreement for execution either confirming completed negotiations between the parties or carrying out a decision of a contract appeals board.

(b) Notwithstanding Paragraph (a) above, (1) interest shall be applied only from the date payment was due, if such date is later than the filing of appeal, and (2) interest shall not be paid for any period of time that the Contracting Officer determines the Contractor has unduly delayed in pursuing his remedies before a board of contract appeals or a court of competent jurisdiction.

(End of clause)

AOC52.232-12 ASSIGNMENT - SUPPLEMENT (MAR 2005)

Neither the contract nor any interest therein shall be assigned. However, moneys due or to become due under the contract may be assigned in accordance with the provisions of FAR clause 52.232-23 ASSIGNMENT OF CLAIMS.

(End of clause)

AOC52.233-1 DISPUTES (JUN 2004)

(a) Except as otherwise provided in this contract, any dispute concerning a question of fact arising under this contract which is not disposed of by agreement shall be decided by the Contracting Officer, who shall reduce his decision to writing and mail or otherwise furnish a copy thereof to the Contractor. The decision of the Contracting Officer shall be final and conclusive unless, within 30 days from the date of receipt of such copy, the Contractor mails or otherwise furnishes to the Contracting Officer a written appeal addressed to the head of the agency involved. The decision of the head of the agency or his duly authorized representative for the determination of such appeals shall be final and conclusive. This provision shall not be pleaded in any suit involving a question of fact arising under this contract as limiting judicial review of any such decision to cases where fraud by such official or his representative or board is alleged; **provided, however**, that any such decision shall be final and conclusive unless the same is fraudulent or capricious or arbitrary or so grossly erroneous as necessarily to imply bad faith or is not supported by substantial evidence. In connection with any appeal proceeding under this paragraph, the Contractor shall be afforded an opportunity to be heard and to offer evidence in support of his appeal. Pending final decision of a dispute hereunder, the Contractor shall proceed diligently with the performance of the contract and in accordance with the Contracting Officer's decision.

(b) This paragraph does not preclude consideration of questions of law in connection with decisions provided for in Paragraph (a) above. Nothing in this contract, however, shall be construed as making final the decision of any administrative official, representative, or board on a question of law.

(End of clause)

AOC52.233-2 CLAIMS FOR EQUITABLE ADJUSTMENTS - WAIVER AND RELEASE OF CLAIMS
(JUN 2004)

(a) Whenever the Contractor submits a claim for equitable adjustment under any paragraph of this contract

which provides for equitable adjustment of the contract, such claim shall include all types of adjustments in the total amounts to which the paragraph entitles the Contractor, including but not limited to adjustments arising out of delays or disruptions or both caused by such change. Except as the parties may otherwise expressly agree, the Contractor shall be deemed to have waived (1) any adjustments to which it otherwise might be entitled under the paragraph where such claims fail to request such adjustments, and (2) any increase in the amount of equitable adjustments additional to those requested in its claim.

(b) Further, the Contractor agrees that, if required by the Contracting Officer, he will execute a release, in form and substance satisfactory to the Contracting Officer, as part of the supplemental agreement setting forth the aforesaid equitable adjustment, and that such release shall discharge the Government, its officers, agents and employees, from any further claims, including but not limited to further claims arising out of delays or disruptions or both, caused by the aforesaid change.

(End of clause)

AOC52.233-3 LIMITATION ON DAMAGES FOR DELAY (JUN 2004)

(a) The Architect shall not be obligated or liable to the Contractor for, and the Contractor hereby expressly waives any claims against the Architect on account of any damages, of any nature whatsoever, which the Contractor, or its subcontractor at any tier may incur as a result of delays, interferences, disruptions, suspensions, changes in sequence or the like arising from or out of any act or omission of the Architect, it being understood and agreed that the Contractor's sole and exclusive remedies in such event shall be a reimbursement of direct costs necessarily incurred as a result of the foregoing causes, and an extension of the contract time, but only in accordance with the provisions of the Contract Documents.

(b) For the purposes of this clause, the term "Damages" shall include all indirect and/or impact costs which shall include, without limitation: unabsorbed Home Office Overhead (including calculations under the "Eichleay Formula"), Idle Labor and Equipment, Loss of Productivity, and Interest; the term "Damages" shall not include on-site direct costs, which shall include direct labor (superintendence, labor, time-keeping, and clerical work) direct materials and supplies (including material handling), direct equipment, restoration and cleanup, overhead and profit (but only as permitted under the clauses "Changes" and "Changes - Supplement", taxes, insurance, and bonding costs, which will be calculated in accordance with the clauses "Changes" and "Changes - Supplement". Provided, however, that the accounting practice of treating these costs as "direct" shall be in accordance with

(1) The Contractor's established and consistently followed cost accounting practices for all work; and

(2) FAR Cost Accounting Cost Principles and Procedures (FAR Part 31).

(c) To the extent that any other provision of this contract provides for the payment of damages, as defined in this clause, to the Contractor and is thus inconsistent with the provisions of this clause, such other provision will be superseded hereby with respect to the issue of damages.

(End of clause)

FAR 52.236-5 MATERIALS AND WORKMANSHIP (APR 1984)

(a) All equipment, material, and articles incorporated into the work covered by this contract shall be new and of the most suitable grade for the purpose intended, unless otherwise specifically provided in this contract. References in the specifications to equipment, material, articles, or patented processes by trade name, make, or catalog number, shall be regarded as establishing a standard of quality and shall not be construed as limiting competition. The Contractor may, at its option, use any equipment, material, article, or process that, in the judgment of the Contracting Officer, is equal to that named in the specifications, unless otherwise specifically provided in this contract.

(b) The Contractor shall obtain the Contracting Officer's approval of the machinery and mechanical and other equipment to be incorporated into the work. When requesting approval, the Contractor shall furnish to the Contracting Officer the name of the manufacturer, the model number, and other information concerning the performance, capacity, nature, and rating of the machinery and mechanical and other equipment. When required by this contract or by the Contracting Officer, the Contractor shall also obtain the Contracting Officer's approval of the material or articles which the Contractor contemplates incorporating into the work. When requesting approval, the Contractor shall provide full information concerning the material or articles. When directed to do so, the Contractor shall submit samples for approval at the Contractor's expense, with all shipping charges prepaid. Machinery, equipment, material, and articles that do not have the required approval shall be installed or used at the risk of subsequent rejection.

(c) All work under this contract shall be performed in a skillful and workmanlike manner. The Contracting Officer may require, in writing, that the Contractor remove from the work any employee the Contracting Officer deems incompetent, careless, or otherwise objectionable.

(End of clause)

FAR 52.236-9 PROTECTION OF EXISTING VEGETATION, STRUCTURES, EQUIPMENT, UTILITIES, AND IMPROVEMENTS (APR 1984)

(a) The Contractor shall preserve and protect all structures, equipment, and vegetation (such as trees, shrubs, and grass) on or adjacent to the work site, which are not to be removed and which do not unreasonably interfere with the work required under this contract. The Contractor shall only remove trees when specifically authorized to do so, and shall avoid damaging vegetation that will remain in place. If any limbs or branches of trees are broken during contract performance, the Contractor shall trim those limbs or branches with a clean cut and paint the cut with a tree-pruning compound as directed by the Contracting Officer.

(b) The Contractor shall protect from damage all existing improvements and utilities (1) at or near the work site and (2) on adjacent property of a third party, the locations of which are made known to or should be known by the Contractor. The Contractor shall repair any damage to those facilities, including those that are property of a third party, resulting from failure to comply with the requirements of this contract or failure to exercise reasonable care in performing the work. If the Contractor fails or refuses to repair the damage promptly, the Contracting Officer may have the necessary work performed and charge the cost to the

Contractor.

(End of clause)

AOC52.236-1 ACCESS TO WORK (JUN 2004)

(a) The Contracting Officer or his representative may visit and inspect the Contractor's plant, without advance notice, at any time during the course of this contract, and he shall be granted every available assistance to facilitate such inspection.

(b) The Contracting Officer and proper members of his staff shall at all times have access to the work, and the Contractor shall provide proper and safe facilities for such access and for inspection.

(End of clause)

AOC52.236-2 OTHER CONTRACTS AND WORK (JUN 2004)

(a) The Contractor shall fully inform himself as to conditions relating to construction and labor under which other work, if any, is being performed, or is to be performed, by or for the Government, by contract or otherwise, where such work may affect or be affected by, operations under this Contract.

(b) Notwithstanding the performance by other parties of work at the site during performance of this contract, the Contractor shall prosecute the work diligently and continuously, and he shall cooperate in every way with such other parties. The Contractor shall give such other parties, to the extent their work is affected by his work, all information necessary for the proper execution of their work, without delay. The Contractor shall so arrange and conduct his work that other parties may complete their work at the site according to schedule. All other work under the instant contract shall be carefully coordinated with work under such other contracts.

(End of clause)

AOC52.236-3 ACCIDENT PREVENTION AND SAFETY AND HEALTH PROGRAMS -
CONSTRUCTION (SEP 2004)

(a) The Contractor shall take proper safety and health precautions to protect the work, the workers, the public, and the property of others and comply with the safety and health standards published in 41 C.F.R. Part 50-205, including any matters incorporated by reference therein. He shall also be responsible for all materials delivered and work performed until completion and final acceptance of the entire contract work, except for any completed unit thereof which theretofore may have been finally accepted.

(b) *Williams-Steiger Occupational Safety and Health Act.* The Contractor shall also comply in all aspects of the job with the regulations issued by the Secretary of Labor pursuant to the Williams-Steiger Occupational Safety and Health Act of 1970, as set forth in Title 29 of the Code of Federal Regulations. The Contractor

shall bring to the attention of the Architect any work encountered which may involve entry into a suspected confined space as defined by OSHA. A determination will be made by the Architect, and if the area is deemed a permit required confined space, additional protective measures will be needed, per OSHA requirements.

(c) *National Fire Protection Association standards.* The Contractor shall comply with all applicable standards of the National Fire Protection Association relative to fire prevention, except to the extent that more exacting requirements are specified or imposed by the Contracting Officer. The Contractor shall keep and properly maintain fire prevention devices at the job site and shall take all possible precautions deemed necessary by the Government representative in charge of the work.

(d) *Protection of property and persons.* (1) The Contractor shall protect all of his material and work at the site, whether incorporated in the work or not, against damage or loss from any cause, and he shall take all necessary precautions against damage to all other work and material on the site. He shall provide and maintain necessary safeguards for protection of his employees, Government employees and the public generally, and he shall take all other proper precautions for their protection against injury. He shall comply with all directives and regulations of the Contracting Officer and other proper authorities relative to the use of public property.

(2) The Contractor shall protect all electric, telephone, computer facilities, water, gas, sewer, steam and other underground utility lines, in sidewalks, streets or other areas in, under or around the site, to the satisfaction of the Contracting Officer, the Government of the District of Columbia, and all other authorities having jurisdiction.

(3) The performance of work at the site by other parties shall not relieve the Contractor from any liability for loss or damage or from his obligations under this contract. No agreement or arrangement between the Contractor and others as to a division or proportionate share of liability for loss or damage incurred, or of the cost of insurance, shall in any way relieve the Contractor of such liability or his obligations under this contract.

(e) The Contractor shall comply with the requirements of FAR 52.236.13, Accident Prevention. In the event that conditions on the site pose an imminent danger or threat to the Contractor's workers, the public, Government employees, other persons, or to Capitol complex structures and property of historical significance, the Contracting Officer can verbally order the Contractor to suspend work operations in the specified area until said conditions are corrected to the Contracting Officer's satisfaction. The Contracting Officer shall promptly issue a written order to suspend the work to the Contractor formalizing the specifics of the verbal suspension of work.

(f) The Contractor shall not be entitled to any equitable adjustment of the contract price or extension of the performance schedule on any stop work order issued under this clause.

(End of clause)

AOC52.236-4 CUTTING AND PATCHING (JUN 2004)

Prior to initiation of the work operations of either cutting or patching, as a necessary requirement of the work under this contract, of any structural component or of lintels, stair systems, piping, duct work, vessels, equipment and like items in the building, the Contractor shall consult with the Contracting Officer and follow explicitly his directions and stated requirements concerning methods, materials, the manner in which the work is performed, and the level of competence and skill possessed by Contractor's employees, or those of subcontractors, who are proposed to be employed in said cutting and/or patching operations.

(End of clause)

AOC52.236-5 CLEANING AND RESTORING (JUN 2004)

(a) The contractor shall remove dirt and debris resulting from the operations under this contract daily.

(b) The Contractor shall, as a condition precedent to the final acceptance of the work, remove from the site of the work all remaining plant, installations, temporary barricades, temporary facilities, equipment, tools, materials, refuse, rubbish and waste, used or accumulated in connection with, but not incorporated in, the work, unless otherwise specified or directed, and he shall leave the buildings, grounds, streets, and all public places occupied by him in a thoroughly clean, neat and satisfactory condition.

(End of clause)

AOC52.236-8 SCHEDULING OF WORK (AUG 2004)

(a) The Contractor shall, before commencing work on the contract or another period of time determined by the Contracting Officer, prepare and submit to the Contracting Officer for approval three copies of a practicable schedule showing the order in which the Contractor proposes to perform the work, and the dates on which the Contractor contemplates starting and completing the several salient features of the work (including acquiring materials, plant, and equipment). The schedule shall be in the form of a progress chart of suitable scale to indicate appropriately the percentage of work scheduled for completion by any given date during the period. If the Contractor fails to submit a schedule within the time prescribed, the Contracting Officer may withhold approval of partial payments until the Contractor submits the required schedule.

(b) The Contractor shall furnish sufficient forces, construction plant and equipment, and shall work such hours as necessary to insure prosecution of work in accordance with the approved schedule. If, in the opinion of the Contracting Officer, the Contractor falls behind in the scheduled progress, the Contractor shall take such steps as may be necessary to improve its progress, including those that may be required by the Contracting Officer, without additional cost to the Government. In this circumstance, the Contracting Officer may require the Contractor to increase the number of shifts, overtime operations, days of work, and/or the amount of construction plant, and to submit for approval any supplementary schedule or schedules in chart form as the Contracting Officer deems necessary to demonstrate how the approved rate of progress will be regained. The provisions of this subparagraph shall not be construed as prohibiting work on Saturdays, Sundays and holidays and, for work performed in the District of Columbia, Presidential Inauguration Day, if the Contractor so elects and if approved.

(c) Failure of the Contractor to comply with the requirements of the Contracting Officer under this clause shall be grounds for a determination by the Contracting Officer that the Contractor is not prosecuting the work with sufficient diligence to ensure completion within the time specified in the contract. Upon making this determination, the Contracting Officer may terminate the Contractor's right to proceed with the work, or any separable part of it, in accordance with the default terms of this contract.

(End of clause)

AOC52.236-9 SCHEDULE OF VALUES (JUN 2004)

(a) The Contractor shall, in accordance with the requirements of the Contracting Officer, prepare and submit for approval a schedule of estimated values of all parts of the work, and shall submit such quantity breakdowns pertinent thereto as the Contracting Officer may deem necessary for the proper checking of partial payment requisitions and for other administrative purposes. The total of the schedule of values shall equal the amount of the contract. The values employed in making this schedule will be used only for determining partial payments; they will not be used as a basis for determining an increase or decrease in the contract price. The listings and subdivisions of this schedule for estimated costs and quantity breakdowns shall be as approved by the Contracting Officer.

(b) The submission and approval of the schedule of values shall be a condition precedent to the making of partial payments.

(End of clause)

AOC52.236-10 SPECIFICATIONS AND DRAWINGS FOR CONSTRUCTION (JUN 2004)

(a) The Contractor shall keep on the site of the work a copy of the drawings and specifications, and of approved shop drawings, product data and samples and shall at all times give the Contracting Officer access thereto. Anything mentioned in the specifications and not shown on the drawings, or shown on the drawings and not mentioned in the specifications, shall be of like effect as if shown or mentioned in both. In case of difference between drawings and specifications, or in case of discrepancy either within the figures, within the drawings, or within the specifications, the matter shall be promptly submitted to the Contracting Officer, who shall promptly make a determination in writing. Any adjustment by the Contractor without such a determination shall be at its own risk and expense. The Contracting Officer shall furnish from time to time such detailed drawings and other information he considers necessary, unless otherwise provided.

(b) "Shop drawings" means drawings submitted to the Government by the Contractor, subcontractor, any lower tier subcontractor pursuant to a construction contract, showing in detail (1) the proposed fabrication and assembly of structural elements and (2) the installation (i.e., form, fit, and attachment details) of materials or equipment. It includes drawings, diagrams, layouts, schematics, descriptive literature, illustrations, schedules, performance and test data, and similar materials furnished by the Contractor to explain in detail specific portions of the work required by the contract.

(c) The Contractor shall submit to the Contracting Officer for approval shop drawings, product data and

samples as required under the various sections of this Project Manual. The Contractor shall coordinate all such submittals, and review them for accuracy, completeness, and compliance with contract requirements and shall indicate its approval thereon as evidence of such coordination and review. Shop drawings, product data, or samples submitted to the Contracting Officer without evidence of the Contractor's approval may be returned for re-submission. The Contracting Officer will indicate an approval or disapproval of the shop drawings and if not approved as submitted shall indicate the Government's reasons therefor. Any work done before such approval shall be at the Contractor's risk. Approval by the Contracting Officer shall not relieve the Contractor from responsibility for any errors or omissions in such submittals, nor from responsibility for complying with the requirements of this contract, except with respect to variations described and approved in accordance with Paragraph (d) below.

(d) If shop drawings, product data, or samples show variations from the contract requirements, the Contractor shall describe such variations in writing, separate from the drawings, at the time of submission. If the Contracting Officer approves any such variation, the Contracting Officer shall issue an appropriate contract modification, except that, if the variation is minor or does not involve a change in price or in time of performance, a modification need not be issued.

(e) Upon completing the work under this contract, the Contractor shall furnish a complete set of all shop drawings as finally approved. These drawings shall show all changes and revisions made up to the time the equipment is completed and accepted. The Government may duplicate, use, and disclose in any manner and for any purpose shop drawings, product data or samples delivered under this contract.

(f) The provisions of this entire paragraph shall be included in all subcontracts at any tier.

(End of clause)

AOC52.236-12 PRODUCT DATA AND SAMPLES (JUN 2004)

(a) Product data shall mean information (e.g., catalog cuts, standard illustrations, drawings, performance charts, data and brochures) pertinent to a particular product, equipment or material required as a part of the work. Product data is required to establish, for the purposes of evaluation and approval, details of the product offered in response to specifications elsewhere in the contract documents. Product data pertains to significant elements such as (1) design; (2) materials; (3) components; (4) performance characteristics; and (5) methods of manufacture, assembly, construction, or operation. The term includes, in addition to the above, the manufacturer's standard printed recommendations for application and use, compliance with recognized standards of trade associations and testing agencies, and the application of their labels and seals (if any).

(b) Samples are physical examples of materials, equipment or workmanship that will be used by the Contracting Officer to establish standards by which the work will be judged.

(c) Samples not subject to destructive tests may be retained by the Contracting Officer until completion of the work; they will then be returned to the Contractor, at his own expense, if he so requests in writing.

(End of clause)

FAR 52.242-14 SUSPENSION OF WORK (APR 1984)

(a) The Contracting Officer may order the Contractor, in writing, to suspend, delay, or interrupt all or any part of the work of this contract for the period of time that the Contracting Officer determines appropriate for the convenience of the Government.

(b) If the performance of all or any part of the work is, for an unreasonable period of time, suspended, delayed, or interrupted (1) by an act of the Contracting Officer in the administration of the contract, or (2) by the Contracting Officer's failure to act within the time specified in this contract (or within a reasonable time if not specified), an adjustment shall be made for any increase in the cost of performance of this contract (excluding profit) necessarily caused by the unreasonable suspension, delay, or interruption, and the contract modified in writing accordingly. However, no adjustment shall be made under this Article for any suspension, delay or interruption to the extent that performance would have been so suspended, delayed, or interrupted by any other cause, including the fault or negligence of the Contractor, or for which an equitable adjustment is provided for or excluded under any other term or condition of this contract.

(c) A claim under this article shall not be allowed (1) for any costs incurred more than 20 days before the Contractor shall have notified the Contracting Officer in writing of the act or failure to act involved (but this requirement shall not apply as to a claim resulting from a suspension order), and (2) unless the claim, in an amount stated, is asserted in writing as soon as practicable after the termination of the suspension, delay, or interruption, but not later than the date of final payment under the contract.

(End of clause)

FAR 52.243-4 CHANGES (AUG 1987)

(a) The Contracting Officer may, at any time, without notice to the sureties, if any, by written order designated or indicated to be a change order, make changes in the work within the general scope of the contract, including changes-

- (1) In the specifications (including drawings and designs);
- (2) In the method or manner of performance of this work;
- (3) In the Government-furnished facilities, equipment, materials, services, or site; or
- (4) Directing acceleration in the performance of the work.

(b) Any other written or oral order (which, as used in this paragraph (b), includes direction, instruction, interpretation, or determination) from the Contracting Officer that causes a change shall be treated as a change order under this clause; Provided, that the Contractor gives the Contracting Officer written notice stating-

- (1) The date, circumstances, and source of the order; and

(2) That the Contractor regards the order as a change order.

(c) Except as provided in this clause, no order, statement, or conduct of the Contracting Officer shall be treated as a change under this clause or entitle the Contractor to an equitable adjustment.

(d) If any change under this clause causes an increase or decrease in the Contractor's cost of, or the time required for, the performance of any part of the work under this contract, whether or not changed by any such order, the Contracting Officer shall make an equitable adjustment and modify the contract in writing. However, except for an adjustment based on defective specifications, no adjustment for any change under paragraph (b) of this clause shall be made for any costs incurred more than 20 days before the Contractor gives written notice as required. In the case of defective specifications for which the Government is responsible, the equitable adjustment shall include any increased cost reasonably incurred by the Contractor in attempting to comply with the defective specifications.

(e) The Contractor must assert its right to an adjustment under this clause within 30 days after (1) receipt of a written change order under paragraph (a) of this clause or (2) the furnishing of a written notice under paragraph (b) of this clause, by submitting to the Contracting Officer a written statement describing the general nature and amount of the proposal, unless this period is extended by the Government. The statement of the proposal for adjustment may be included in the notice under paragraph (b) of this clause.

(f) No proposal by the Contractor for an equitable adjustment shall be allowed if asserted after final payment under this contract

(End of Clause)

AOC52.243-1 CHANGES - SUPPLEMENT (JUN 2004)

(a) *Definitions.* (1) A "change order" is a unilateral contract modification, signed by the Contracting Officer, which describes and identifies a particular change in the requirements as permitted by the FAR clause, 52.243-4, "Changes" and authorizes the contractor to begin performance with the changed requirements. The change order may reference pertinent oral or written directives, provide an adjustment to the contract price and/or time for performance, and direct the contractor to submit a proposal for definitization of the change order.

(2) A "supplemental agreement" is a bilateral contract modification, signed by the contractor and the Contracting Officer, which either authorizes the contractor to begin performance with the changed requirements in accordance with the equitable adjustment agreed to prior to commencement of performance of the changed requirements or definitizes a change order after agreement of an equitable adjustment to the contract.

(3) Request for Proposal. A request by the Contracting Officer or his duly authorized representative for the contractor to submit a proposal for requirements contemplated to be changed. Such proposal shall be submitted within the time limit specified in the request and in accordance with the requirements and limitations of this clause.

(b) *Authorization of changes.* All changes to contract requirements will be authorized in writing by the Contracting Officer through one of the following methods:

- (1) A Supplemental Agreement, with the concurrence of the contractor; or
- (2) A unilateral Change Order.

(c) *Submission of proposals and cost breakdowns by the contractor.*

(1) Proposals for changes to the contract requirements shall include a brief description of the change; a breakdown of costs as outlined hereinafter; and a time impact analysis (fragnet).

(2) In considering proposals for changes involving added requirements, omitted requirements, or any combination thereof, the Contracting Officer or his duly authorized representative will make check-estimates in such detail as he deems necessary with the view of arriving at equitable adjustments. With each proposal, the contractor shall submit separately an itemized breakdown as per "Exhibit A" hereof, which shall include, but not be limited to, the following:

- (i) Direct labor costs;
- (ii) Social Security and Unemployment Insurance Taxes;
- (iii) Workmen's compensation and general liability insurance;
- (iv) Direct material quantities and unit prices (separated into trades);
- (v) Construction equipment;
- (vi) Overhead; and
- (vii) Profit.

(3) If the contractor believes that the change in the contract requirements affects the contract period of performance, as required by AOC52.211-5, Commencement, Prosecution, and Completion of Work, of the Supplementary Conditions, appropriate substantiation must be submitted for evaluation/review.

(4) A complete proposal, including breakdown of cost and time impact, shall be submitted by the contractor within the time frame stipulated in calendar days by the Government for each proposed change. Generally, complete proposals shall be submitted by the contractor within 7 calendar days after the contractor receives the request for proposal, although this time frame may be adjusted for more complex or more urgent requirements. Except as provided by an individual contract modification, no payment for a change order will be made until a supplemental agreement has been signed by the contractor and the Contracting Officer. If complete proposals are not received timely, the Contracting Officer, after consultation with his authorized representative, may determine the cost of the change and the time impact and issue a change order based upon

this determination with the stipulation that if a supplemental agreement is not negotiated within a reasonable amount of time, this determination will be final and conclusive, subject only to the contractor's rights of appeal as provided in AOC52.233-1, Disputes, of the General Conditions.

(d) *Allowances for overhead and profit.* (1) The following percentages will be allowed for overhead and profit:

(i) The contractor shall receive, as a percentage of the cost of all work performed by his own organization, an amount not to exceed 10% overhead and not to exceed 10% profit; and

(ii) If subcontractor(s) are involved in the change, a fee in an amount not to exceed 10% as a percentage of the total price of the subcontractor portion of the change.

(iii) Subcontractor(s) to the prime contractor (first tier subcontractor(s)) shall receive, as a percentage of the cost of all work performed by or for it, a total amount not to exceed 10% overhead and not to exceed 10% profit.

(iv) The percentages for fees, overhead, and profit permitted by the above shall be allowed only for the contractor and its first tier subcontractors. Percentages for fees, overhead, and profit in any amount will be not be allowed for subcontractors of any other tier.

(2) Percentages for overhead allowed are deemed to include, but shall not be limited to, the following:

(i) Field Overhead Items.

(A) Trailer;

(B) Storage Facilities;

(C) Contractor's and subcontractor's superintendence;

(D) Construction equipment/tools, except those that are specially required for a specific change;

(E) Utilities;

(F) Contractor's and subcontractor's field office, administrative/support staff;

(G) Cost of preparing record drawing changes, correspondence, etc., relating to the contract;

(H) Job site safety aids; and

- (I) Cleaning and maintenance of nuisance debris from jobsite.
- (ii) Office Overhead Items for Contractor and Subcontractors.
 - (A) Maintenance/operation of principal or branch offices;
 - (B) Personnel costs;
 - (C) Cost for preparing correspondence, fragnets, etc., relating to the contract; and
 - (D) Cost of insurance and bonds, except for insurance costs relating to direct labor, as outlined in "Exhibit A" .

(iii) For changes which include custom items unique to the project and which are fabricated off-site, the fabricator, whether the contractor or a subcontractor at any tier, shall furnish a breakdown of costs associated with the work in the fabricating plant. This breakdown shall include labor, material, equipment and overhead/plant costs in sufficient detail to allow for review by the Contracting Officer or his duly authorized representative. Costs charged to overhead/plant shall be allowable costs for the fabricator, whether he is the contractor or a subcontractor at any tier, provided that the costs claimed are consistent with the provisions of Subpart 31.203 of the Federal Acquisition Regulation (Chapter 1, Title 48, Code of Federal Regulations). An amount not to exceed 10% of the cost of the fabricated item will be allowed for the fabricator's profit. If the fabricator is a subcontractor, the overhead and profit percentages for the contractor and any subcontractor at a higher tier having a contractual relationship with the fabricator shall be allowed in accordance with this clause.

(e) *Changes involving decreases in price.* For changes involving only a decrease in price, the contractor and subcontractors shall return as credit for overhead and profit those same percentages which are allowed for like changes involving increases in price. On changes involving both an increase and a decrease in price, overhead and profit will be allowed only on the net increase.

(f) *Changes involving increases or decreases on basis of contract specified unit prices.* No percentages for overhead and profit will be added to, or deleted from, any unit prices in event of an increase or decrease in the contract requirements on the basis of contractual unit prices.

EXHIBIT A TYPICAL FORM OF BREAKDOWN FOR PRICE ADJUSTMENT

SUBCONTRACTORS' BREAKDOWN

Items Involved	Quan- ties	Unit Cost	Equip- ment	Material	Labor	Extensions		Unit Cost
						Totals	Final Totals	

Excavation (Identify)								
• Volume								
• Crane Operator								
• Laborers								
Shoring (Identify)								
• Area								
• Welder								
Subcontractor Total								

PRIME CONTRACTOR'S BREAKDOWN

Items Involved	Quan- tities	Unit Cost	Equip- ment	Material	Labor	Extensions		Unit Cost
						Totals	Final Totals	
West Wall (Cinder Block)								
• Area								
• Block 8x8x16								
• Mortar								
• Mason								
• Laborer								
Subtotal								
Prime Contractor's Total								

Prime Contractor's Overhead and Profit on Subcontractor								
Total								

(End of clause)

AOC52.244-1 AWARD OF SUBCONTRACTS AND OTHER CONTRACTS FOR PORTIONS OF THE WORK (JUN 2004)

(a) The Contractor shall perform all work with his own forces, unless written approval is obtained from the Contracting Officer for subcontracting a portion of the work.

(b) In the event the Contractor obtains approval for subcontracting a portion of the work, the following paragraphs shall apply:

(1) Each subcontractor shall be experienced in and capable of performing in a satisfactory manner all work in his speciality, and shall meet the standard of competence hereinbefore established for the Contractor.

(2) Before awarding any subcontracts the Contractor shall submit for approval the names, addresses and qualifications of subcontractors, if any, that he proposes to employ for any branch of the work, and no subcontractor shall be permitted to proceed with any branch of the work until approved. If required, the Contractor shall furnish accurate records, detailed photographs of work performed, and any other information desired in connection with any subcontractor as to whose ability there may exist any doubt in the mind of the Contracting Officer.

(c) The Contractor shall be responsible for all acts of subcontractors employed by him under this contract, and for their compliance with all terms and provisions of the contract applicable to their performance. The Contractor shall continuously coordinate the work of all sub-contractors to assure proper processing and progress of the Work. The Contractor shall require each subcontractor to (1) examine the project schedule, shop drawings and the work of other trades and all sections of the specifications to the extent necessary for satisfactory Installation of his work, and connection between his work and the work of other trades; (2) coordinate his work accordingly; and (3) cooperate with other trades toward timely and satisfactory completion of the entire Work.

(d) Organization of the specifications into sections and subsections and the arrangement of drawings shall not control the Contractor in dividing work among subcontractors or in establishing the extent of work to be performed by any trade.

(e) Nothing contained in the contract documents shall create any contractual relations between any

subcontractor and the Government.

(End of clause)

AOC52.245-2 GOVERNMENT-FURNISHED PROPERTY (NOV 2004)

(a) For the purposes of this clause, Government-furnished “property” includes cell phones and telephones, personal digital assistants, computers (including laptops), electronic devices, services such as network access, tools, furnished space, storage, utilities, furnishings, equipment, and any other item or service provided by the AOC to the contractor.

(b) No AOC equipment or property can be provided under this contract unless specifically negotiated as part of the award price. If, after contract award, it becomes necessary or advisable to issue AOC property to the contractor, the contract price shall be reduced by a reasonable amount that reflects the price the contractor would pay if providing the property.

(c) The Contracting Officer’s Technical Representative (COTR) for this contract is responsible for coordinating the issuance and return of Government-furnished property.

(d) Any Government-furnished property provided to the contractor for use during performance of this contract shall be issued to the contractor’s representative and recorded on AOC Form 1423, AOC PROPERTY ISSUED TO CONTRACTORS. The contractor’s representative shall be responsible for the ensuring the proper care and use of the Government-furnished property, whether used by the contractor representative or another contractor employee. Government-furnished property provided by the AOC can be used only for the conduct of official business on behalf of the AOC. The contractor is specifically prohibited from using AOC-furnished property for personal use or to conduct operations that benefit other Government agency contracts or other contractor activities that do not directly support AOC contracts.

(e) All information technology property that requires interface or connection to the AOC network must be provided by the AOC. The use of non-AOC IT property that requires interface or connection to the AOC network is strictly prohibited.

(f) All contractor employees who require access to the AOC network or who are issued a personal digital assistant must complete and sign the “Non-disclosure Agreement for Contract Employees Conditional Access to Sensitive but Unclassified Information for The Architect of The Capitol” before access will be granted. The COTR is responsible for providing the non-disclosure agreements to the AOC Office of Information Resources Management.

(g) All Government-furnished property shall be returned by the contractor to the COTR in the same condition as issued, with allowances for wear and tear that occurs with reasonable care and use. Failure to return Government-furnished property or the return of Government-furnished property that has not been properly maintained and used may result in a reduction to the contract price that reflects the market replacement value of the property or the market price to repair or restore the property to its condition when issued to the contractor.

(End of clause)

AOC52.246-1 FINAL INSPECTION AND ACCEPTANCE - CONSTRUCTION - SUPPLEMENT
(SEP 2004)

(a) No inspection or other action of the Government shall be construed to constitute a final acceptance of any portion of the work under this contract until all work under the contract is completed. None of the work under the contract shall be deemed to be finally accepted until the Contractor, upon completion and final inspection of all work, is notified in writing of final acceptance of work under the contract, or in lieu thereof, until final payment of the final voucher as prescribed in AOC52.232-4, Payments - Construction. The provisions of FAR clause 52.246-12, Inspection of Construction are hereby modified by the provisions of this paragraph with respect to the finality of acceptance of any portion of the work by the Government prior to completion of all work under the contract.

(b) The Contractor shall notify the Contracting Officer, at least 10 days in advance, of the date the work will be fully complete and ready for final inspection. Any additional costs incurred by the Government due to necessary reinspection of work found not ready for final inspection upon the Contractor's notice of completion will be charged to the Contractor and deducted from the contract price.

(End of clause)

AOC52.246-6 ADDITIONAL WARRANTY COVERAGE (JUN 2004)

If the Contractor receives from any manufacturer, supplier or subcontractor additional warranty coverage on the whole or any component of the work required by this contract, in the form of time including any pro rata arrangements, or the Contractor generally extends to his commercial customers a greater or extended warranty coverage, the Government shall receive corresponding warranty benefits.

(End of clause)

FAR 52.252-2 CLAUSES INCORPORATED BY REFERENCE (FEB 1998)

This contract incorporates one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. Also, the full text of a clause may be accessed electronically at this/these addresses: www.gsa.gov or www.govcon.com

<u>CLAUSE TITLE</u>	<u>DATE</u>	<u>FAR NUMBER</u>
GRATUITIES	APR 1984	52.203-3
COVENANT AGAINST CONTINGENT FEES	APR 1984	52.203-5
RESTRICTIONS ON SUBCONTRACTOR SALES TO THE GOVERNMENT	JUL 1995	52.203-6
AUDIT AND RECORDS - NEGOTIATION	JUN 1999	52.215-2

CONTRACT WORK HOURS AND SAFETY STANDARDS		
ACT - OVERTIME COMPENSATION	SEP 2000	52.222-4
DAVIS-BACON ACT	JUL 2005	52.222-6
WITHHOLDING OF FUNDS	FEB 1988	52.222-7
PAYROLLS AND BASIC RECORDS	FEB 1988	52.222-8
APPRENTICES AND TRAINEES	FEB 1988	52.222-9
COMPLIANCE WITH COPELAND ACT REQUIREMENTS	FEB 1988	52.222-10
SUBCONTRACTS (LABOR STANDARDS)	FEB 1988	52.222-11
CONTRACT TERMINATION - DEBARMENT	FEB 1988	52.222-12
COMPLIANCE WITH DAVIS-BACON AND RELATED ACT REGULATIONS	FEB 1988	52.222-13
DISPUTES CONCERNING LABOR STANDARDS	FEB 1988	52.222-14
CERTIFICATION OF ELIGIBILITY	FEB 1988	52.222-15
EQUAL OPPORTUNITY	APR 2002	52.222-26
AFFIRMATIVE ACTION COMPLIANCE REQUIREMENTS FOR CONSTRUCTION	FEB 1999	52.222-27
EQUAL OPPORTUNITY FOR SPECIAL DISABLED VETERANS, VETERANS OF THE VIETNAM ERA AND OTHER ELIGIBLE VETERANS	DEC 2001	52.222-35
AFFIRMATIVE ACTION FOR WORKERS WITH DISABILITIES	JUN 1998	52.222-36
EMPLOYMENT REPORTS ON SPECIAL DISABLED VETERANS, VETERANS ON THE VIETNAM ERA, AND OTHER ELIGIBLE VETERANS	DEC 2001	52.222.37
DRUG-FREE WORKPLACE	MAY 2001	52.223-6
PATENT INDEMNITY- CONSTRUCTION CONTRACTS	APR 1984	52.227-4
ADDITIONAL BOND SECURITY	OCT 1997	52.228-2
IRREVOCABLE LETTER OF CREDIT	DEC 1999	52.228-14
FEDERAL, STATE AND LOCAL TAXES	APR 2003	52.229-3
ASSIGNMENT OF CLAIMS	JAN 1986	52.232-23
DIFFERING SITE CONDITIONS	APR 1984	52.236-2
SITE INVESTIGATION AND CONDITIONS AFFECTING THE WORK	APR 1984	52.236-3
SUPERINTENDENCE BY THE CONTRACTOR	APR 1984	52.236-6
PERMITS AND RESPONSIBILITIES	NOV 1991	52.236-7
OTHER CONTRACTS	APR 1984	52.236-8
USE AND POSSESSION PRIOR TO COMPLETION	APR 1984	52.236-11
ACCIDENT PREVENTION	NOV 1991	52.236-13
PRE-CONSTRUCTION CONFERENCE	FEB 1995	52.236-26
BANKRUPTCY	JUL 1995	52.242.13
GOVERNMENT PROPERTY (FIXED-PRICE CONTRACTS)	MAY 2004	52.245-2
INSPECTION OF CONSTRUCTION	AUG 1996	52.246-12
WARRANTY OF CONSTRUCTION	MAR 1994	52.246-21
TERMINATION FOR CONVENIENCE OF THE GOVERNMENT (FIXED-PRICE)	MAY 2004	52.249-2

ALTERNATE I
DEFAULT (FIXED-PRICE) CONSTRUCTION

SEP 1996
APR 1984 52.249-10

(End of clause)

END OF GENERAL CONDITIONS

SUPPLEMENTARY CONDITIONS

TABLE OF CONTENTS

AOC52.201-1	CONTRACTING OFFICER’S AUTHORITY
AOC52.201-2	CONTRACTING OFFICER’S TECHNICAL REPRESENTATIVE (COTR)
FAR 52.211-12	LIQUIDATED DAMAGES
AOC52.211-5	COMMENCEMENT, PROSECUTION AND COMPLETION OF WORK
AOC52.223-5	SPECIAL SECURITY REQUIREMENTS
AOC52.223-6	SPECIAL SECURITY REQUIREMENTS - U.S. SUPREME COURT
AOC52.223-8	DELIVERY VEHICLE INSPECTION REQUIREMENTS
AOC52.236-11	SUBMITTALS

SUPPLEMENTARY CONDITIONS

AOC52.201-1 CONTRACTING OFFICER'S AUTHORITY (JUN 2004)

The Contracting Officer is the only person authorized to make or approve any changes in any of the requirements of this contract, notwithstanding any provision contained elsewhere in this contract. In the event that the Contractor makes any change at the direction of any person other than the Contracting Officer, the change will be considered to have been made without authority and no adjustment will be made in the contract price to cover any increase in costs incurred as a result thereof.

(End of clause)

AOC52.201-2 CONTRACTING OFFICER'S TECHNICAL REPRESENTATIVE (COTR) (JUN 2004)

The Government shall provide the name, address and telephone number of the COTR at the time of contract award and the duties thereby delegated to that person. Any subsequent change to the individual or the individual's responsibilities will be confirmed in writing by the Contracting Officer. In no instance will the COTR be delegated authority to order any change in the contractor's performance which would affect (a) cost or schedule for contracts for services or supplies or cost, or (b) the completion date for intermediate phases or milestones, or overall completion date for contracts for construction.

(End of clause)

FAR 52.211-12 LIQUIDATED DAMAGES (SEP 2000)

(a) If the Contractor fails to complete the work within the time specified in the contract, the Contractor shall pay liquidated damages to the Government in the amount of **\$500.00** for each calendar day of delay until the work is completed or accepted.

(b) If the Government terminates the Contractor's right to proceed, liquidated damages will continue to accrue until the work is completed. These liquidated damages are in addition to excess costs of repurchase under the Termination clause.

(End of clause)

AOC52.211-5 COMMENCEMENT, PROSECUTION AND COMPLETION OF WORK (SEP 2004)

(a) All work to be performed under this contract shall be completed between **November 15,**

2005 and March 15, 2006. No work under this contract shall be performed on Saturdays, Sundays or Federal holidays and, for work performed in the District of Columbia, Presidential Inauguration Day, except with prior approval of the Contracting Officer.

(b) Time for completion of the contract work will be adjusted only in accordance with applicable clauses in the GENERAL CONDITIONS (e.g., "Differing Site Conditions", "Changes", "Changes - Supplement", "Suspension of Work").

(End of clause)

AOC52.223-5 SPECIAL SECURITY REQUIREMENTS - SERVICES (JUN 2005)

(a) All vehicles, and contents, used by the Contractor or his subcontractors, which enter or leave United States Government property during performance of the work, will be subject to clearance, inspection and identification procedures conducted by the United States Capitol Police. See the attachment entitled "U.S. CAPITOL POLICE NOTICE" for instructions prior to delivery.

(b) All persons entering the Legislative Branch Buildings shall gain access to the building by passing through x-ray screening devices. In addition, all handbags and all hand-carried items shall be screened by x-ray devices prior to their entry into the building.

(c) All personnel provided by the Contractor and employed on the site of the work will be subject to a security background investigation. Each employee will be required to fill out an I.D. Request Form and U.S. Capitol Police Request for check of Criminal History Records and each employee will be photographed and fingerprinted. The Contractor shall provide any assistance required by any of its employees in completing the forms.

(d) Prior to commencement of work, the contractor and all designated on-site employees will be required, on a one-time basis, to be fingerprinted in Washington D.C. The location for the Electronic Fingerprinting Service is the U.S. Capitol Hill Police Headquarters, 119 D Street, N.E.

(e) Within seven (7) calendar days after the date of contract award, the Contractor shall submit to the Contracting Officer's Technical Representative (COTR) a list of all employees proposed to be employed on this contract. This list shall include the employee's full name, date of birth and social security number.

(f) While security background investigations are in process, the Contractor's employees must not be granted access to the Capitol Hill complex to perform work or provide services for the AOC unless they are escorted by an AOC staff member. "Escorted" is defined to mean that the AOC staff member will remain with the employee(s) **at all times** during the performance of the work. Any of the Contractor's employees who are perceived by the Contracting Officer as a security risk as a result of evidence discovered in the background security investigation, will not

be issued an Identification Card, will be denied access to the site of the work, and the Contractor will be directed to remove such employee from performance of any of the contract work, whether it be on or off the work site. Any contractor employee denied access to the site of work on a contract or task/delivery order as a result of a security investigation may not apply for access to any other AOC/U.S. Supreme Court contract or task/delivery order work site.

(g) An identification card, with photograph, will be prepared for each employee of the Contractor requiring access to the site. The identification card shall be dated to indicate the period of time for which it is to remain valid - from the date the employee reports for duty until the applicable date which occurs first: the expiration of the contract, or the last date of the employee's tour of duty with the Contractor.

(h) All persons entering the Legislative Branch Buildings shall gain access to the building by passing through a magnetometer. In addition, all handbags and all hand-carried items shall be screened by x-ray devices prior to their entry into the building.

(i) The Contractor is fully responsible to return:

(1) The ID badge of any individual employee, including subcontractor personnel, who is removed for any reason including but not limited to illness, or dismissal;

(2) The ID badges of all contractor employees, including subcontractor personnel, whose performance under the contract is completed in advance of final contract job completion; and

(3) All outstanding ID badges issued for the contractor and its employees, including subcontractor personnel, within 24 hours of on site contract job completion.

(j) ID badges are to be hand delivered by the contractor within 24 hours of any of the events listed under (f) above to the Contracting Officer's Representative.

(End of clause)

AOC52.223-8 DELIVERY VEHICLE INSPECTION REQUIREMENTS (SEP 2004)

(a) All vehicles and contents used by the Contractor or his subcontractors which enter or leave United States Government property during performance of work under this contract will be subject to clearance, inspection, and identification procedures conducted by the United States Capitol Police.

(b) *Mobile Vehicle and Cargo Inspection System (Mobile VACIS)*. All delivery vehicles carrying fuel, garbage, or similar cargo that cannot be offloaded for inspection and security screening shall utilize the Mobile VACIS located at Third and Pennsylvania Avenue, NW,

Washington, DC, for inspection prior to making deliveries to any building within the Capitol Complex, including, but not limited to, the U.S. Capitol Building; the U.S. Botanic Garden; the Hart, Dirksen, and Russell Senate Office Buildings; the Rayburn, Longworth, Cannon, and Ford House Office Buildings; the Thomas Jefferson, John Adams, and James Madison Memorial Library of Congress buildings; the Capitol Power Plant; the Capitol Visitors Center; and the U.S. Supreme Court and Thurgood Marshall Federal Judiciary Buildings.

(1) For deliveries requiring Mobile VACIS inspection, within seven calendar days or prior to the first delivery, the contractor shall provide the following information to the U.S. Capitol Police:

- (i) List of drivers;
- (ii) Date of birth for each driver;
- (iii) Social Security Number of each driver;
- (iv) Vehicle make;
- (v) Vehicle model;
- (vi) License tag number and state where vehicle is licensed;
- (vii) Color of vehicle; and
- (viii) Contractor name, if shown on the vehicle.

(2) Information for deliveries made through the Mobile VACIS unit must be faxed to (202) 228-4313. For verification of receipt, the contractor may call (202) 224-9728.

(3) Updates to the above information for Mobile VACIS deliveries must be sent to the U.S. Capitol Police throughout the period of performance of the contract.

(c) *40 P Street SE inspection facility.* All other vehicles making deliveries to the above listed locations except for the Thomas Jefferson, John Adams, and James Madison Memorial Library of Congress buildings and the U.S. Supreme Court shall utilize the off-site inspection and screening facilities at 40 P Street, SE, in compliance with instructions as provided elsewhere in this contract.

(End of clause)

AOC52.236-11 SUBMITTALS (JUN 2004)

(a) The Contractor shall deliver all required submittals within the times specified elsewhere

in this contract. Unless specifically stated otherwise, four (4) sets of each item shall be delivered by the contractor to the Contracting Officer's Technical Representative. An in-depth description of these submittals can be found in the appropriate technical sections of the specification. Any Schedule of Work prepared shall reflect delivery of these items. Failure to provide timely delivery of these submittals may be considered to be grounds for termination for default.

(b) The Government will review the submittals and either approve them as submitted, or mark required changes on them. If changes are required, the Contractor shall deliver revised submittals for approval by the Government which incorporate all of the required changes within two weeks after receipt by the Contractor of the marked-up submittals.

(End of clause)

END OF SUPPLEMENTARY CONDITIONS

**REPRESENTATIONS, CERTIFICATIONS,
AND OTHER STATEMENTS OF OFFERORS**

TABLE OF CONTENTS

FAR 52.203-2	CERTIFICATE OF INDEPENDENT PRICE DETERMINATION
FAR 52.204-3	TAXPAYER IDENTIFICATION
AOC52.204-2	DATA UNIVERSAL NUMBERING SYSTEM (DUNS) NUMBER
AOC52.204-3	REPRESENTATIONS AND CERTIFICATIONS
AOC52.215-8	AUTHORIZED NEGOTIATORS

**REPRESENTATIONS, CERTIFICATIONS,
AND OTHER STATEMENTS OF OFFERORS**

FAR 52.203-2 CERTIFICATE OF INDEPENDENT PRICE DETERMINATION (APR 1985)

(a) The offeror certifies that -

(1) The prices in this offer have been arrived at independently, without, for the purpose of restricting competition, any consultation, communication, or agreement with any other offeror or competitor relating to –

- (i) Those prices;
- (ii) The intention to submit an offer; or
- (iii) The methods or factors used to calculate the prices offered;

(2) The prices in this offer have not been and will not be knowingly disclosed by the offeror, directly or indirectly, to any other offeror or competitor before bid opening (in the case of a sealed bid solicitation) or contract award (in the case of a negotiated solicitation) unless otherwise required by law; and

(3) No attempt has been made or will be made by the offeror to induce any other concern to submit or not to submit an offer for the purpose of restricting competition.

(b) Each signature on the offer is considered to be a certification by the signatory that the signatory -

(1) Is the person in the offeror's organization responsible for determining the prices being offered in this bid or proposal, and that the signatory has not participated and will not participate in any action contrary to paragraphs (a)(1) through (a)(3) of this provision; or

(2)(i) Has been authorized, in writing, to act as agent for the following principals in certifying that those principals have not participated, and will not participate in any action contrary to paragraphs (a)(1) through (a)(3) of this provision

[insert full name of person(s) in the offeror's organization responsible for determining the prices offered in this bid or proposal, and the title of his or per position in the offeror's organization];

- (ii) As an authorized agent, does certify that the principals named in

subdivision (b)(2)(i) of this provision have not participated, and will not participate, in any action contrary to paragraphs (a)(1) through (a)(3) of this provision; and

(iii) As an agent, has not personally participated, and will not participate, in any action contrary to paragraphs (a)(1) through (a)(3) of this provision.

(c) If the offeror deletes or modifies paragraph (a)(2) of this provision, the offeror must furnish with its offer a signed statement setting forth in detail the circumstances of the disclosure.

(End of provision)

FAR 52.204-3 TAXPAYER IDENTIFICATION (OCT 1998)

(a) *Definitions.* "Common parent," as used in this provision, means that corporate entity that owns or controls an affiliated group of corporations that files its Federal income tax returns on a consolidated basis, and of which the offeror is a member.

"Taxpayer Identification Number (TIN)," as used in this provision, means the number required by the Internal Revenue Service (IRS) to be used by the offeror in reporting income tax and other returns. The TIN may be either a Social Security Number or an Employer Identification Number.

(b) All offerors must submit the information required in paragraphs (d) through (f) of this provision to comply with debt collection requirements of 31 U.S.C. 7701(c) and 3325(d), reporting requirements of 26 U.S.C. 6041, 6041A, and 6050M, and implementing regulations issued by the IRS. If the resulting contract is subject to the payment reporting requirements described in Federal Acquisition Regulation (FAR) 4.904, the failure or refusal by the offeror to furnish the information may result in a 31 percent reduction of payments otherwise due under the contract.

(c) The TIN may be used by the Government to collect and report on any delinquent amounts arising out of the offeror's relationship with the Government (31 U.S.C. 7701(c)(3)). If the resulting contract is subject to the payment reporting requirements described in FAR 4.904, the TIN provided hereunder may be matched with IRS records to verify the accuracy of the offeror's TIN.

(d) *Taxpayer Identification Number (TIN).*

_____ TIN: _____.

_____ TIN has been applied for.

_____ TIN is not required because:

_____ Offeror is a nonresident alien, foreign corporation, or foreign partnership that does not have income effectively connected with the conduct of a trade or business in the United States and does not have an office or place of business or a fiscal paying agent in the United States;

_____ Offeror is an agency or instrumentality of a foreign government;

_____ Offeror is an agency or instrumentality of a Federal government;

(e) *Type of organization.*

_____ Sole proprietorship;

_____ Partnership;

_____ Corporate entity (not tax-exempt);

_____ Corporate entity (tax-exempt);

_____ Government entity (Federal, State, or local);

_____ Foreign government

_____ International organization per 26 CFR 1.6049-4;

_____ Other _____

(f) *Common Parent.*

_____ Offeror is not owned or controlled by a common parent as defined in paragraph (a) of this provision.

_____ Name and TIN of common parent:

Name _____

TIN _____

(End of provision)

AOC52.204-2 DATA UNIVERSAL NUMBERING SYSTEM (DUNS) NUMBER (JUN 2004)

(a) The offeror shall enter, in the space provided below, the DUNS number that identifies the offeror's name and address exactly as stated in the offer. The DUNS number is a nine-digit

number assigned by Dun and Bradstreet Information Services.

(b) If the offeror does not have a DUNS number, it should contract Dun and Bradstreet directly to obtain one. A DUNS number will be provided immediately by telephone at no charge to the offeror. For information on obtaining a DUNS number, the offeror, if located within the United States, should call Dun and Bradstreet at 1-800-333-0505. The offeror should be prepared to provide the following information:

- (1) Company name,
- (2) Company address;
- (3) Company telephone number;
- (4) Line of business;
- (5) Chief executive officer/key manager;
- (6) Date the company was started;
- (7) Number of people employed by the company; and
- (8) Company affiliation.

(c) Offerors located outside the United States may obtain the location and phone number of the local Dun and Bradstreet Information Services office from the Internet home page at <http://www.customerservice@dnb.com>. If an offeror is unable to locate a local service center, it may send an e-mail to Dun and Bradstreet at globalinfo@mail.dnb.com.

(d) Enter DUNS number:_____.

(End of provision)

AOC52.204-3 REPRESENTATIONS AND CERTIFICATIONS (NOV 2004)

The offeror shall properly execute and submit with its offer the Representations and Certifications contained herein. Insert information in spaces provided as applicable.

(End of provision)

AOC52.215-8 AUTHORIZED NEGOTIATORS (JUN 2004)

The offeror represents that following persons are authorized to negotiate on its behalf with the Government in connection with this Request for Proposal:

Name

Title

Telephone: _____

E-Mail:_____

Name

Title

Telephone: _____

E-Mail: _____

Name

Title

Telephone: _____

E-Mail: _____

(End of provision)

END OF REPRESENTATIONS, CERTIFICATIONS, AND OTHER STATEMENTS OF OFFERORS

SOLICITATION CONDITIONS

TABLE OF CONTENTS

FAR 52.211-6	BRAND NAME OR EQUAL
AOC52.215-1	INSTRUCTIONS TO OFFERORS
AOC52.215-2	INTERPRETATIONS AND AMENDMENTS
AOC52.215-3	RESTRICTION ON DISCLOSURE AND USE OF DATA
AOC52.215-4	CONTRACT AWARD
AOC52.215-7	PREPARATION OF PROPOSALS - CONSTRUCTION
AOC52.215-9	FAILURE TO SUBMIT OFFER
FAR 52.216-1	TYPE OF CONTRACT
AOC52.217-1	EVALUATION OF OPTIONS
FAR 52.225-10	NOTICE OF BUY AMERICAN ACT REQUIREMENT-- CONSTRUCTION MATERIALS
AOC52.228-1	OFFER GUARANTEE
AOC52.236-13	VISIT TO THE SITE OF THE WORK - CONSTRUCTION

SOLICITATION CONDITIONS

FAR 52.211-6 BRAND NAME OR EQUAL (AUG 1999)

- (a) If an item in this solicitation is identified as “brand name or equal,” the purchase description reflects the characteristics and level of quality that will satisfy the Government’s needs. The salient physical, functional, or performance characteristics that “equal” products must meet are specified in the solicitation.
- (b) To be considered for award, offers of “equal” products, including “equal” products of the brand name manufacturer, must–
- (1) Meet the salient physical, functional, or performance characteristic specified in this solicitation;
 - (2) Clearly identify the item by–
 - (i) Brand name, if any; and
 - (ii) Make or model number;
 - (3) Include descriptive literature such as illustrations, drawings, or a clear reference to previously furnished descriptive data or information available to the Contracting Officer; and
 - (4) Clearly describe any modifications the offeror plans to make in a product to make it conform to the solicitation requirements. Mark any descriptive material to clearly show the modifications.
- (c) The Contracting Officer will evaluate “equal” products on the basis of information furnished by the offeror or identified in the offer and reasonable available to the Contracting Officer. The Contracting Officer is not responsible for locating or obtaining any information not identified in the offer.
- (d) Unless the offeror clearly indicates in its offer that the product being offered is an “equal” product, the offeror shall provide the brand name product referenced in the solicitation.

(End of provision)

AOC52.215-1 INSTRUCTIONS TO OFFERORS (FEB 2005)

- (a) *Definitions.* As used in this provision --
“Proposal modification” is a change made to a proposal before the solicitation’s closing date and

time, or made in response to an amendment, or made to correct a mistake at any time before award.

“Proposal revision” is a change to a proposal made after the solicitation closing date, at the request of or as allowed by a Contracting Officer as the result of negotiations.

“Time,” if stated as a number of days, is calculated using calendar days, unless otherwise specified, and will include Saturdays, Sundays, and legal holidays, including Presidential Inauguration Day. However, if the last day falls on a Saturday, Sunday, or legal holiday, including Presidential Inauguration Day, then the period shall include the next working day.

(b) Offerors are expected to examine the entire solicitation and all instructions. Failure to do so will be at the offeror’s risk. Each offeror shall furnish the information required by the solicitation. The offeror will be held responsible for full knowledge of all information contained therein.

(c) *Packaging, transmission, and tracking of proposals.* (1) Proposals, modifications, and revisions shall be enclosed, in the quantities specified elsewhere in this solicitation, in sealed envelopes. With each copy of the form entitled “SOLICITATION, OFFER, AND AWARD (Construction, Alteration, or Repair)”, enclose the completed Schedule page, Bid Guarantee, if required, and Representations and Certifications. Address envelopes to: Architect of the Capitol, Procurement Division, Ford House Office Building, Attn: Chris Lindsay, Contract Specialist, Room H2-263 Bid Room, Second and “D” Streets, S.W., Washington, DC 20515. Offeror shall place the OF-17, Offer Label, on the exterior of the package on the same side as the address, or write “Bid Documents Enclosed”, “H2-263 Bid Room”, and write the solicitation number, time and date for receipt of offers on the exterior of the package on the same side as the address. Telegraphic or facsimile proposals and modifications will not be considered.

(2) Current security requirements established by the U.S. Capitol Police to screen mail being delivered to the U.S. Capitol Complex of buildings preclude the use of U. S. Postal Service by offerors to deliver their proposals submitted in response to this solicitation. In addition, because all packages must be screened for security purposes at a central location prior to their delivery, the Architect of the Capitol cannot accept packages containing offers hand carried directly to the Bid Room address within the Ford House Office Building, or any other location in the U.S. Capitol Complex of buildings. **See “Notice for Delivery” on the front of the solicitation.**

(3) To assist in tracking of proposals, offerors are requested to fax a copy of their signed “Solicitation, Offer and Award” form as well as a copy of the FEDEX or UPS receipt to Chris Lindsay to (202) 225-3221 at the time of the issuance of their proposal.

(4) The only acceptable method by which offerors can deliver their responses to this solicitation shall be via Federal Express (FEDEX) or United Parcel Service (UPS). Offers submitted via any other method will be rejected. **OFFERORS - DO NOT MAIL YOUR OFFER BY REGULAR U.S. MAIL.** See notice attached to this solicitation for special instructions.

(d) *Submission, modification, revision, and withdrawal of proposals.* (1) Offerors are responsible for submitting proposals and any modifications or revisions so as to reach the Government office designated in the solicitation by the time specified in the solicitation. If no time is specified in the solicitation, the time for receipt is 4:30 p.m. local time, for the designated Government office on the date that the proposal or revision is due. For the purposes of determining timeliness, the designated Government office is defined as the Pitney Bowes Management Services Capitol Heights Mail Facility at 9140 East Hampton Drive, Capitol Heights, Maryland 20743.

(2) Any proposal, modification, or revision received at the Government office designated in the solicitation after the exact time specified for receipt of offers is “late” and will not be considered unless it is received before award is made, the Contracting Officer determines that accepting the late offer would no unduly delay the acquisition, and-

(i) If it was transmitted through an electronic commerce method authorized by the solicitation, it was received at the initial point of entry to the Government infrastructure not later than 5:00 p.m. one working day prior to the date specified for receipt of proposals;

(ii) There is acceptable evidence to establish that it was received at the Government installation designated for receipt of proposals and was under the Government’s control prior to the time set for receipt of proposals; or

(iii) It is the only proposal received.

(3) However, a late modification of an otherwise successful proposal that makes its terms more favorable to the Government, will be considered at any time it is received and may be accepted.

(4) Acceptable evidence to establish the date of receipt at the Government installation includes the time/date stamp of that installation on the offer wrapper, other documentary evidence of receipt maintained by the installation, or oral testimony or statements of Government personnel.

(5) If an emergency or unanticipated event interrupts normal Government processes so that offers cannot be received at the Government office designated for receipt of proposals by the exact time specified in the solicitation and urgent Government requirements preclude amendment of the solicitation, the time specified for receipt of proposals will be deemed to be extended to the same time of day specified in the solicitation on the first work day on which normal Government processes resume.

(6) Proposals may be withdrawn by written notice received at any time before award. Proposals may be withdrawn in person by an offeror or an authorized representative if the identity of the person requesting withdrawal is established and the person signs a receipt for the proposal before award.

(End of provision)

AOC52.215-2 INTERPRETATIONS AND AMENDMENTS (JUN 2004)

(a) Any prospective offeror desiring an explanation or interpretation of the solicitation, drawings, specifications, etc., must request it in writing no later than fourteen calendar days prior to the date established for receipt of offers. Oral explanations or instructions given before the award of a contract will not be binding.

(b) Prospective offerors shall request the Contracting Officer, in writing, via FAX or e-mail for an interpretation or correction of any ambiguity, inconsistency, or error in the contract documents which they may discover or which should have been discovered by a reasonably prudent offeror. Such requests or objections to materials or methods of construction shown or specified shall be directed to the attention of the Contracting Officer at least **fifteen (15) calendar days prior to the date specified for receipt of proposals**. Written requests shall be transmitted via e-mail to clindsay@aoc.gov or via facsimile to (202) 225-3221.

(c) Any interpretations or corrections, as well as any additional modifications the Contracting Officer may desire to include, will be in the form of amendments, in writing, which will be sent on the same date to all offerors if that information is necessary in submitting offers or if the lack of it would be prejudicial to other prospective offerors and shall become a part of any subsequent contract. The Contracting Officer reserves the right to answer only such questions as have, in his opinion, a definite bearing upon the proposals to be submitted.

(1) Offerors shall acknowledge the receipt of all amendments to the solicitation by:

(i) Signing and returning the amendment;

(ii) Identifying the amendment number and date in the space provided for this purpose on the form for submitting a offer;

(iii) Letter or telegram; or

(iv) Facsimile, if facsimile offers are authorized in the solicitation.

(2) The Government must receive the acknowledgment by the time and at the place specified for receipt of offers.

(d) Requests for oral interpretations or any other interpretations not made by amendments will not be accepted, and any information that may possibly be gained by offerors in that manner is gratuitous and not binding.

(e) If this solicitation is amended, all terms and conditions that are not amended remain unchanged.

(End of provision)

AOC52.215-3 RESTRICTION ON DISCLOSURE AND USE OF DATA (JUN 2004)

Offerors that include in their proposals data that they do not want disclosed to the public for any purpose, or used by the Government except for evaluation purposes, shall—

- (a) Mark the title page with the following legend:
“This proposal includes data that shall not be disclosed outside the Government and shall not be duplicated, used, or disclosed--in whole or in part--for any purpose other than to evaluate this proposal. If, however, a contract is awarded to this offeror as a result of--or in connection with--the submission of this data, the Government shall have the right to duplicate, use, or disclose the data to the extent provided in the resulting contract. This restriction does not limit the Government’s right to use information contained in this data if it is obtained from another source without restriction. The data subject to this restriction are contained in sheets (insert numbers or other identification of sheets)”;
- (b) Mark each sheet of data it wishes to restrict with the following legend:
“Use or disclosure of data contained on this sheet is subject to the restriction on the title page of this proposal.”

(End of provision)

AOC52.215-4 CONTRACT AWARD (JUN 2004)

- (a) The Government will evaluate offers in response to this solicitation without discussions and will award a contract to the responsible offeror whose offer, conforming to the solicitation, will be most advantageous to the Government considering only price and the price-related factors specified elsewhere in the solicitation. Therefore, the offeror’s initial proposal should contain the offeror’s best terms from a price standpoint. The Government reserves the right to conduct discussions.
- (b) The Government may—
 - (1) Reject any or all offers;
 - (2) Accept other than the lowest offer; and
 - (3) Waive informalities or minor irregularities in offers received.
- (c) The Government may accept any item or combination of items, unless doing so is precluded by a restrictive limitation in the solicitation or the offer.

(d) A written award or acceptance of offer mailed or otherwise furnished to the successful offeror within the time for acceptance specified in the offer shall result in a binding contract without further action by either party. Before the offer's specified expiration time, the Government may accept an offer (or part of an offer as provided in Paragraph (c) of this clause), whether or not there are negotiations after its receipt, unless a written notice of withdrawal is received before award. Negotiations conducted after receipt of an offer do not constitute a rejection or counteroffer by the Government.

(e) Neither financial data submitted with an offer, nor representations concerning facilities or financing, will form a part of the resulting contract. However, if the resulting contract contains a clause providing for price reduction for defective cost or pricing data, the contract price will be subject to reduction if cost or pricing data furnished is incomplete, inaccurate, or not current.

(f) The Government may determine that an offer is unacceptable if the prices proposed are materially unbalanced between line items or sub line items. Unbalanced pricing exists when, despite an acceptable total evaluated price, the price of one or more contract line items is significantly overstated or understated as indicated by the application of cost or price analysis techniques. A proposal may be rejected if the Contracting Officer determines that the lack of balance poses an unacceptable risk to the Government.

(End of provision)

AOC52.215-7 PREPARATION OF PROPOSALS - CONSTRUCTION (JUN 2004)

(a) Offers shall be submitted, in the quantities as stated elsewhere in this solicitation, on the accompanying printed form entitled, "SOLICITATION, OFFER, AND AWARD (Construction, Alteration, or Repair)" and copies thereof, with blank spaces suitably filled in. Erasures or other changes on any or all submissions shall be initialed by the signer of the offer.

(b) Copies of the offer shall be identical and each copy shall give the full business address of the offeror, and be signed by him (see Block 20B of the form entitled, "SOLICITATION, OFFER, AND AWARD (Construction, Alteration, or Repair)") with his usual signature. Offer by partnerships shall furnish the full names of all partners, and shall be signed with the partnership name by one of the members of the partnership or by an authorized representative, followed by the signature and designation of the person signing. Offers by corporations shall be signed with the legal name of the corporation, followed by the name of the State of incorporation and by the signature and designation of the president, secretary, or other person authorized to bind it in the matter. The name of each person signing shall be typed or printed below the signature. An offer by a person who affixes to his signature the word "president", "Secretary", "agent", or other designation, without disclosing his principal, may be held to be the offer of the individual signing. When requested by the Government, satisfactory evidence of the authority of the offer signing in behalf of the corporation shall be furnished.

(End of provision)

AOC52.215-9 FAILURE TO SUBMIT OFFER (JUN 2004)

Recipients of this solicitation not responding with a proposal should not return this solicitation, unless it specifies otherwise. Instead, they should advise the issuing office by letter, postcard, or established electronic commerce methods, whether they want to receive future solicitations for similar requirements. If a recipient does not submit a proposal and does not notify the issuing office that future solicitations are desired, the recipient's name **will** be removed from the applicable mailing list.

(End of provision)

FAR 52.216-1 TYPE OF CONTRACT (APR 1984)

The Government contemplates award of a firm-fixed-price contract resulting from this solicitation.

(End of provision)

AOC52.217-1 EVALUATION OF OPTIONS (NOV 2003)

Except when it is determined not to be in the Government's best interest, the Government will evaluate offers for award purposes by adding the total price for the selected options which include Line Item 0002 through 0007; to the total price which includes the lump sum price, the line item pricing and the unit pricing. The estimated quantities given under the unit prices are for informational purposes only to provide the Government a price for evaluation purposes. Evaluation of options will not obligate the Government to exercise the options.

(End of provision)

FAR 52.225-10 NOTICE OF BUY AMERICAN ACT REQUIREMENT--
CONSTRUCTION MATERIALS (MAY 2002)

(a) *Definitions.* "Construction material", "domestic construction material", and "foreign construction material", as used in this provision, are defined in the clause of this solicitation entitled "Buy American Act - Construction Materials (Federal Acquisition Regulation (FAR) clause 52.225-9).

(b) *Requests for determination of inapplicability.* An offeror requesting a determination of

inapplicability of the Buy American Act should submit the request to the Contracting officer in time to allow a determination before submission of offers. The offeror shall include the information and applicable supporting data required by paragraphs (c) and (d) of the clause at FAR 52.225-9 in the request. If an offeror has not requested a determination regarding the inapplicability of the Buy American Act before submitting its offer or has not received a response to a previous request, the offeror shall include the information and supporting data on the offeror.

(c) *Evaluation of offers.* (1) The Government will evaluate an offer requesting exception to the requirements of the Buy American Act based on claimed unreasonable cost of domestic construction material, by adding to the offered price the appropriate percentage of the cost of such foreign construction material, as specified in paragraph (b)(3)(i) of the clause at FAR 52.225-9.

(2) If the evaluation results in a tie between an offeror that requested the substitution of foreign construction material based on unreasonable cost and an offeror that did not request an exception, the Contracting Officer will award to the offeror that did not request an exception based on unreasonable costs.

(d) *Alternate offers.* (1) When an offer includes foreign construction material not listed by the Government in this solicitation in paragraph (b)(2) of the clause at FAR 52.225-9, the offeror may also submit an alternate offer based on use of equivalent domestic construction material.

(2) If an alternate offer is submitted, the offeror shall submit a separate Standard Form 1442 for the alternate offer and a separate price comparison table prepared in accordance with paragraphs (c) and (d) of the clause at 52.225-9 for the offer that is based on the use of any foreign construction material for which the Government has not yet determined an exception applies.

(3) If the Government determines that a particular exception requested in accordance with paragraph (c) of the clause at 52.225-9 does not apply, the Government will evaluate only those offers based on use of the equivalent domestic construction material, and the offeror shall be required to furnish such domestic construction material. An offer based on use of the foreign construction material for which an exception was requested--

(i) Will be rejected as nonresponsive if this acquisition is conducted by sealed bidding; or

(ii) May be accepted if revised during negotiations.

(End of provision)

AOC52.228-1 OFFER GUARANTEE (JUN 2004)

(a) Failure to furnish an Offer Guarantee in the required form and amount, with and as a part of the proposal, will be cause for rejection of the proposal.

(b) The offeror shall furnish an Offer Guarantee of not less than 20% of the proposed price in the form of a firm commitment consisting of a Bid Bond, Certified Check, Cashier's Check, Irrevocable Letter of Credit, or Postal Money Order made payable to the Architect of the Capitol, or, under Treasury Department Regulations, certain bonds or notes of the United States. The Contracting Officer will return Offer Guarantees, other than Bid Bonds, (1) to unsuccessful offerors as soon as practicable after evaluation of the proposals; and (2) to the successful offeror upon execution of contractual documents and bonds (including any necessary coinsurance or reinsurance agreements), as required by the offer as accepted.

(End of provision)

AOC52.236-13 VISIT TO THE SITE OF THE WORK - CONSTRUCTION (JUN 2004)

(a) It is strongly recommended that all prospective offerors visit the site where the work is to be performed, compare the work requirements with existing conditions, verify dimensions, if necessary, and fully inform themselves regarding the nature and scope of the proposed work and the conditions under which it will be conducted. Offerors shall also inform themselves regarding other work, if any, being done or to be done by or for the United States government, the District of Columbia government and utility companies, by contract or otherwise, where such work may affect or be affected by the operations under the contract. Failure to take these precautions will in no way relieve the successful offeror from his obligation to furnish all materials, services, labor, and any other requirements necessary to complete the work satisfactorily under the conditions established by the contract documents and without additional expense to the Government.

(b) A pre-proposal meeting will be conducted at the Ford House Office Building, located at 2nd and D Streets, SW, Room H2-340, Washington, D.C. 20515, for all prospective offerors on August 17, 2005 at 10:00AM, local time.

(c) The Architect will conduct one field inspection of the work immediately following the pre-proposal meeting. Those intending to participate shall meet at the address above. Information concerning the meeting may be obtained by telephoning Chris Lindsay, Contract Specialist, at (202) 226-0994.

(d) Offerors are encouraged to submit all questions in writing at least five (5) working days prior to the conference. Questions will be considered at any time prior to or during the conference; however, offerors will be asked to confirm verbal questions in writing. Subsequent to the conference, an amendment to the solicitation containing an abstract of the questions and answers, and a list of attendees, will be disseminated.

(e) Offerors are cautioned that, notwithstanding any remarks or clarifications given at any

site visit, the pre-proposal conference or field inspection, all terms and conditions of the solicitation remain unchanged unless they are changed by amendment to the solicitation. If the answers to conference questions, or any solicitation amendment, create ambiguities, it is the responsibility of the offeror to seek clarification prior to submitting a offer.

(End of provision)

END OF SOLICITATION CONDITIONS

VOLUME I I

TECHNICAL

Scope of Work/Project Overview

Title: Replace Chilled Water Coils in the Ford House Office Building

1.0 General Requirements

The contractor shall provide all labor, materials, equipment, transportation, supervision and rigging to replace the chilled water coils, associated piping, isolation valves and insulation in the Ford House Office Building (FHOB).

1.1 Current Conditions

The FHOB contains 8 air handling units (AHU) in the 7th floor mechanical space. Each AHU contains a 6 section chilled water coil which has deteriorated over time and requires replacement. Several sections have been shut off because the leaks can no longer be repaired. In addition, a number of the isolation valves will not hold and some of the existing instrumentation no longer works.

1.2 Description of Work – Chilled Water Coils. Replace all 6 sections of the chilled water coils in each air handling unit (AHU numbers 1, 2, 3, 4, 5, 6, 7 & 8) in the penthouse of the FHOB. Provide new coils that are the same dimensions and capacity as the existing coils. Attached is a chart with limited specification information on the existing coils. It is the contractor responsibility to field verify all existing coil dimensions and capacities. The contractor will be required to remove and dispose of the existing coils. For AHU #8, the contractor shall install the government furnished coils. The minimum design standards for chilled water coils shall be:

- a) Maximum air velocity: 450 ft/min.
- b) Tube wall thickness: .035" copper
- c) Fins: .010" thick, lead free solder coated or mechanically bonded copper fins.
- d) Casings: 16 gage stainless steel.
- e) Headers: non-ferrous metal.
- f) Pressure: 200 PSIG working pressure.
- g) No aluminum fins.
- h) No connection of dissimilar metals that could cause corrosion.

Refer to specification section 15 for additional requirements.

1.3 Description of Work – Piping and Instrumentation. Replace all piping from the coil back to the coil isolation valves. Schedule 40 steel pipe must be used. Provide a new dial type pressure gage and a thermometer (in degrees F) for both the inlet and outlet coil header for each coil. The contractor is responsible for removal and disposal of all the old piping, instruments and construction debris. The minimum design standards for the pipe and fittings shall be:

- a) All pipe, fittings and accessories shall be rated class 150.

Refer to specification section 15 for additional requirements.

1.4 Description of Work – Isolation Valves. Each coil is equipped with six butterfly type isolation valves. Replace all isolation valves with 6 new ball valves, class 150, suitable for chilled water service. The contractor is responsible for removal and disposal of all the old valves and construction debris. The minimum design standards for the valves shall be:

- a) All ball valves shall meet MSS SP-70, class 150, 200 PSIG ASTM B 584, 2 piece construction, chrome plated brass ball with a conventional port.
- b) The valves shall be blowout proof with a bronze or brass stem, Teflon seats and seals with a vinyl covered handle

Refer to specification section 15 for additional requirements.

1.5 Description of Work – Insulation. Reinsulate all disturbed pipe and fittings. All chilled water pipe shall have a vapor barrier and shall be finished with a minimum of an 8 oz. canvass cover. Insulation shall be 1.5 inch thick fiberglass for pipe sizes 3 inch and smaller and 2 inch thick fiberglass for pipe sizes 4 inches and larger. Paint the new pipe insulation to match existing. The insulation products and installation shall meet specification section 15080.

1.6 Commissioning

The equipment type and performance shall be verified against the manufacturer specifications. The operation of all HVAC equipment shall be demonstrated to a government representative. The contractor is responsible for notifying the government at least 48 hours in advance to inspect the following items:

- a) Chilled water piping properly connected.
- b) Chilled water piping pressure tested (1.5 times maximum working pressure).
- c) Air vents installed on water coils with cut off valves as specified.
- d) Any damage to coil fins has been repaired.
- e) The casing undamaged
- f) Insulation undamaged.
- g) Condensate drainage is unobstructed. Visually verify pan drains completely.
- h) Piping flushed and cleaned.
- i) Valves installed as required.
- j) Piping insulated as required.
- k) Thermometers and gauges installed as required
- l) Check cooling mode inlet air and water temperature.
- m) Check cooling mode outlet air and water temperature.

- n) Check cooling coil water flow.

Note: the above items are not necessarily in order of construction

2.0 Submissions

The government requires the contractor to submit all equipment specifications for approval prior to purchasing or installing any equipment. Two copies of each submission is required for the following:

- a) Coils
- b) Valves
- c) Pipe
- d) Instrumentation
- e) O & M Manuals containing warranty information, contractor information, parts list and maintenance and repair procedures.

3.0 Site Conditions/Miscellaneous

3.1 Trash Removal – The contractor is fully responsible for removing all trash generated on site and must not use government trash receptacles. A permanent dumpster will not be allowed. A scheduled dumpster delivery will be allowed, but must be scheduled 48 hours in advance and removed from the site the same day of delivery.

3.2 Parking – Parking will not be provided, however short duration periods for unloading materials is permitted, but must be scheduled 24 hours in advance.

3.3 Bidding Instructions

- a) Base bid work will include replacing the chilled water coils in air handling unit (AHU) # 8 with the government furnished coils and replacing the coil in AHU #7.
- b) Work for Option #1 will include replacing the chilled water coils in air handling unit (AHU) # 4.
- c) Work for Option #2 will include replacing the chilled water coils in air handling unit (AHU) # 6.
- d) Work for Option #3 will include replacing the chilled water coils in air handling unit (AHU) # 1.
- e) Work for Option #4 will include replacing the chilled water coils in air handling unit (AHU) # 2.
- f) Work for Option #5 will include replacing the chilled water coils in air handling unit (AHU) # 3.
- g) Work for Option #6 will include replacing the chilled water coils in air handling unit (AHU) # 5.

3.4 Lay down Area

The lay down areas will be the space adjacent to the AHU that is currently being worked on.

3.5 Burn Permit Procedures

Before any cutting, grinding or burning can take place the contractor must obtain burn permit. This procedure will be covered in the pre-construction meeting.

3.6 Work Hours

Work hours during the week will be 7 PM to 7 AM (this work must be done when the building is not occupied). Work can also be done anytime on the weekend. At the end of each work day the air handling unit must be operational.

3.7 Schedule

This work must be accomplished between November 15, 2005 and March 15, 2006.

3.8 Some field work will have to be done to verify existing conditions. The contractor will be responsible for conducting all necessary field investigations to verify information provided, and to check all conditions, and locations of the areas affected by the proposed work. The scope of work as herein does not relieve the contractor from furnishing all of the items within the general scope of the specifications, even though some of the items may not be specifically mentioned or detailed. It is the intention of this contract to provide air handling units/cooling coils complete and usable with no further work required.

3.9 Warrantee - Contractor shall provide as standard, a first year parts and labor warranty.

4.0 General Guidelines to be followed:

- a) All construction will follow federal, state and local codes as well as the codes and standards that apply to each discipline as dictated by the appropriate governing body (SMACNA, NEBB, ASHRAE, etc...).
- b) The warrantee period will not start until all the items on the punch list have been corrected.

DIVISION 1 - GENERAL REQUIREMENTS**PART 1 - GENERAL****1.1 DESCRIPTION OF REQUIREMENTS:**

- A. **General Requirements:** The provisions or requirements of Division-1 apply to entire work of Contract and, where so indicated, to other elements which are included in project, and include, but are not limited to the following:

1. Summary of the Work.
2. Project Coordination.
3. Definitions and Standards.
4. Schedules, Reports, and Payments.
5. Submittals.
6. Temporary Facilities and Controls.
7. Products.
8. Project Closeout.

1.2 SUMMARY OF THE WORK:

A. **Project/Work Identification:**

1. **General:** Project name is "Replace Chilled Water Coils in the Ford House Office Building," Washington, D.C., as shown on the Contract Documents prepared by the Architect of the Capitol.
2. **Summary by Reference:** Work of the Contract can be summarized by references to the SCHEDULE, GENERAL CONDITIONS, SUPPLEMENTARY CONDITIONS, Official Procedure for Making Changes in Contracts, Specification Sections, Drawings, Amendments and Modifications to the Contract Documents issued subsequent to the initial printing of this Project Manual and including, but not necessarily limited to, printed material referenced by any of these.
3. **Abbreviated Written Summary:** Briefly and without force and effect upon the Contract Documents, the work of the Contract can be summarized as follows:
 - a. **The Work includes** The contractor shall provide all labor, materials, equipment, transportation, supervision and rigging to replace the chilled water coils, associated piping, isolation valves and insulation in the Ford House Office Building (FHOB).

1. Base bid work will include replacing the chilled water coils in air handling unit (AHU) # 8 with the government furnished coils and replacing the coil in AHU #7.
2. Work for Option #1 will include replacing the chilled water coils in air handling unit (AHU) # 4.
3. Work for Option #2 will include replacing the chilled water coils in air handling unit (AHU) # 6.
4. Work for Option #3 will include replacing the chilled water coils in air handling unit (AHU) # 1.
5. Work for Option #4 will include replacing the chilled water coils in air handling unit (AHU) # 2.
6. Work for Option #5 will include replacing the chilled water coils in air handling unit (AHU) # 3.
7. Work for Option #6 will include replacing the chilled water coils in air handling unit (AHU) # 5.

B. Contractor Use of Premises:

1. **General:** The Contractor shall limit his use of the premises to the work indicated, so as to allow for the Government's occupancy and use by the public.
2. **Contractor Use of the Existing Building:** During the construction period, the site and the building will be occupied by Members of Congress, other Government employees and the general public. Maintain the existing building in a safe and weather-tight condition throughout the construction period. Repair damage caused by construction operations. Take all precautions necessary to protect the building and its occupants during the construction period. Cooperate fully with the Architect or his representative during construction operations to minimize conflicts and to facilitate Government usage.
 - a. **Clear Passage:** Keep public areas such as hallways, stairs, elevator lobbies and toilet rooms free from accumulation of waste material, rubbish or construction debris. Materials, tools, hoists, scaffolding and other equipment may not be placed in the hallways, stairways, and elevator lobbies beyond designated areas without prior written permission of the Architect.
 - b. **Smoking or open fires** will not be permitted within the building enclosure or on the premises.
 - c. **Use of Existing Elevators:** Refer to Article, "Temporary Facilities and Controls," for designation of elevators available for use of Contractor's personnel. Use of other than designated elevators will not be permitted.
3. **Limitations on Use of the Site:** Limitations on site usage as well as specific requirements that impact site utilization are indicated on the Drawings and by other Contract Documents. Portions of the site beyond areas on which work is indicated are not to be disturbed. In addition to these limitations and requirements, administer allocation of available space among entities needing

both access and space so as to produce the best overall efficiency in performance of the total work of the project. Schedule deliveries so as to minimize space and time requirements for storage of materials and equipment on site.

- a. **Unless designated** for sole Contractor use, keep existing driveways and entrances serving the premises clear and available to the Government and its employees at all times.
 - b. **Maintain driveways** between and around combustible material storage piles of at least 15' wide and free of accumulation of rubbish, equipment and materials. Maintain access for fire fighting equipment and emergency vehicles.
 - c. **Do not unreasonably** encumber the site with materials or equipment. Confine stockpiling of materials and location of storage sheds to the areas indicated. If additional storage is necessary, obtain and pay for such storage off-site.
4. **Construction Parking Control:** Parking space for personal vehicles is not available on the site. Obtain approval of Architect for parking of construction motor vehicles or other equipment on the site.
- C. **Blasting:** The use of any kind or type of explosive in the performance of the work is prohibited, except the use of construction tools actuated by or employing powder-actuated charges which shall be permitted, provided that the tool is of the kind and design ordinarily used for such construction and that the Architect has authorized its use after determining that its use will not endanger human life or safety.
- D. **Mechanical/Electrical Requirements of General Work:** Except as otherwise indicated, comply with applicable provisions of The National Electrical Code (NEC) and standards by National Electrical Manufacturer's Association (NEMA) for electrical components of general work. Where applicable, provide products listed and labeled by nationally recognized independent testing and labeling organizations.

1.3 PROJECT COORDINATION:

- A. **Continuously coordinate** the work of subcontractors to insure proper processing and progress of the work. Require each subcontractor to examine work of other trades and all sections of specifications to assure satisfactory installation of, and connection between, his work and work of other trades.
1. **Provide other parties,** to the extent their work is affected by this work, all information necessary for the proper execution of their work. Arrange and conduct work so that other parties may complete their work at the site according to schedule. All work under this Contract shall be carefully coordinated with work under other such Contracts.

2. **The Contractor** shall maintain a complete set of Contract Documents on the site during the execution of this Contract. All Drawings and Specifications shall be posted with the latest information and Changes.
 3. **Benchmarks:** Work from lines and levels established by measured shop drawings, establish and maintain bench marks and other dependable markers. Establish bench marks and markers to set lines and levels for work at each story of construction and elsewhere as needed to accurately and properly locate each element of the project.
- B. **Demolition Work**, and other work which will produce noise, smoke, or odors, must be performed after standard working hours and coordinated with Government personnel. Refer to Division 15 Section MECHANICAL SPECIFICATIONS for additional coordination requirements.
- C. **General Installation Provisions:**
1. **Pre-Installation Meetings:** Hold a pre-installation meeting at the project site well before installation of each unit of work which requires coordination with other work. Installer and representatives of the manufacturers and fabricators who are involved in or affected by that unit of work, and with its coordination or integration with other work that has preceded or will follow, shall attend this meeting. Advise Architect of scheduled meeting dates.
 2. **Installer's Inspection of Conditions:** Require the Installer of each major unit of work to inspect the substrate to receive work and conditions under which the work is to be performed. The Installer shall report all unsatisfactory conditions in writing to the Contractor. Do not proceed with the work until unsatisfactory conditions have been corrected in a manner acceptable to the Installer.
 3. **Manufacturer's Instructions:** Where installations include manufactured products, comply with the manufacturer's applicable instructions and recommendations for installation, to the extent that these instructions and recommendations are more explicit or more stringent than requirements indicated in the Contract Documents.
 4. **Mounting Heights:** Where mounting heights are not indicated, mount individual units of work at industry recognized standard mounting heights for the particular application indicated. Refer questionable mounting height choices to the Architect for final decision.
 - a. **Mount units of work** required to be accessible to handicapped people at heights prescribed by the Uniform Federal Accessibility Standards as referenced by the Americans with Disabilities Act (ADA).
- D. **Cleaning and Protection:** During handling and installation of work at the project site, clean and protect work in progress and adjoining work on the basis of continuous maintenance. Apply protective covering on installed work where it is required to ensure freedom from damage or deterioration at time of completion.

1. **Clean and perform maintenance** on installed work as frequently as necessary through remainder of the construction period. Adjust and lubricate operable components to ensure operability without damaging effects.
 2. **Limiting Exposures of Work:** To the extent possible through reasonable control and protection methods, supervise performance of the work in such a manner and by such means which will ensure that none of the work, whether completed or in progress, will be subjected to harmful, dangerous, damaging or otherwise deleterious exposure during the construction period.
 - a. **Protect against possible damage** all sills, jambs and soffits of permanent openings used as passageways or through which materials are handled. Protect exposed corners, spandrels, projecting features and similar permanent work subject to damage. Cover and protect all prefinished work from damage by mortar, plaster, gypsum drywall compounds, paint, and other construction materials and operations. Use wheelbarrows equipped with rubber tires over permanently exposed floors and paving.
 3. **Load all trucks** leaving the site with loose debris in a manner that will prevent dropping of materials on streets. Fasten suitable tarpaulins over the load before they enter surrounding paved streets.
- E. **Cutting and Patching:** Where the Contractor must cut, patch, alter, add to, repair or refinish existing construction and finishes which are not to be removed, he shall leave such construction and finishes complete and in satisfactory condition. Cutting, patching, and the like shall be neatly and carefully performed, and new materials and methods shall match existing corresponding work unless otherwise indicated. Exposed patches and repairs shall be as inconspicuous as possible.
1. **Construction, finishes,** equipment and other items which are damaged or defaced by reason of work performed under this Contract shall be restored to the satisfaction of the Architect.
- F. **Conservation and Salvage:** It is a requirement for supervision and administration of the work that construction operations be carried out with the maximum possible consideration given to the conservation of energy, water and materials. In addition, maximum consideration shall be given to salvaging materials and equipment involved in performance of the work but not incorporated therein. Refer to other sections for required disposition of salvage materials which are the Government's property.

1.4 DEFINITIONS AND STANDARDS:

- A. **General:** Comply with governing regulations and the codes and standards imposed upon the work. These requirements include the obtaining of permits, licenses, inspections, releases and similar documentation, as well as payments, statements and similar requirements associated with regulations, codes and standards.

- B. **Definitions:** A substantial amount of specification language consists of definitions for terms found in other Contract Documents, including the drawings. (Drawings must be recognized as diagrammatic in nature and not completely descriptive of the requirements indicated thereon). Certain terms used in the Contract Documents are defined in this article. Definitions and explanations contained in this section are not necessarily either complete or exclusive, but are general for the work to the extent that they are not stated more explicitly in another element of the Contract Documents.
1. **Concealed:** The term "concealed" is defined as an item or space not normally seen, occupied or used by building occupants or staff, such as shafts, hoistways, tunnels, ceiling plenums, attics, and crawls spaces.
 2. **Exposed:** The term "exposed" is defined as an item or surface, exterior or interior, which can be seen by a person outside the building or a person inside a usable space within the building during normal activity.
 - a. **Mechanical and** electrical rooms, air handling rooms, storage rooms and penthouses shall be considered to have exposed surfaces, as shall the mechanical and electrical construction within them.
 - b. **The interiors** of closets and alcoves shall be considered exposed surfaces, and shall be finished to match the finish of the adjoining room or space, unless another finish is otherwise indicated.
 - c. **The interiors** of cabinets shall be considered exposed, but a finish different from that of the exterior may be permitted or required by other sections.
 3. **Finished Space:** The term "finished space" is defined as space normally used by the public, building occupants or staff for primary functions of the building, but does not include mechanical, electrical and elevator equipment rooms, hoistways, tunnels or mechanical penthouses, unless otherwise indicated.
 4. **Furnish:** Except as otherwise defined in greater detail, the term "furnish" is used to mean supply and deliver to the project site, ready for unloading, unpacking, assembly, installation, etc., as applicable in each instance.
 5. **Indicated:** The term "indicated" is a cross-reference to graphic representations, notes or schedules on drawings, to other paragraphs or schedules in the specifications, and to similar means of recording requirements in Contract Documents. Where terms such as "shown," "noted," "scheduled," and "specified" are used in lieu of "indicated," it is for the purpose of helping the reader locate cross-reference, and no limitation is intended except as specifically noted.
 6. **Install:** Except as otherwise defined in greater detail, the term "install" is used to describe operations at the project site including unloading, unpacking, assembly, erection, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning and similar operations, as applicable in each instance.
 7. **Installer:** The term "installer" is defined as the entity (person or firm) engaged by the Contractor, its subcontractor or sub-subcontractor for performance of a

particular unit of work at the project site, including installation, erection, application and similar required operations. It is a general requirement that such entities (installers) be expert in the operations they are engaged to perform.

8. **Provide:** Except as otherwise defined in greater detail, the term "provide" means furnish and install, complete and ready for intended use, as applicable in each instance.
9. **Specialist:** The term "specialist" is defined as an individual or firm of established reputation (or, if newly organized, whose personnel have previously established a reputation in the same field), which is regularly engaged in, and which maintains a regular force of workers skilled in either (as applicable) manufacturing or fabricating items required by the Contract, installing items required by the Contract, or otherwise performing work required by the Contract. Where the Contract Specification requires installation by a specialist, that term shall also be deemed to mean either the manufacturer of the item, an individual or firm licensed by the manufacturer, or an individual or firm who will perform the work under the manufacturer's direct supervision.
10. **Testing Laboratory:** The term "testing laboratory" is defined as an independent entity engaged to perform specific inspections or tests of the work, either at the project site or elsewhere, and to report, and (if required) interpret results of those inspections or tests.

C. **Format and Specification Content Explanations:** Bolding and underscoring: Are used strictly to assist reader of specification text in scanning text for key words (for quick recall). No emphasis on or relative importance is intended where bolding and underscoring are used. Imperative language is used generally in specifications. Except as otherwise indicated, requirements expressed imperatively are to be performed by the Contractor. For clarity of reading at certain locations, contrasting subjective language is used to describe responsibilities which must be fulfilled indirectly by Contractor, or when so noted, by others.

1. **Abbreviations:** The language of specifications and other Contract Documents is of the abbreviated type in certain instances, and implies words and meanings which will be appropriately interpreted. Actual word abbreviations of a self-explanatory nature have been included in texts. Specific abbreviations have been established, principally for lengthy technical terminology and primarily in conjunction with coordination of specification requirements with titles of general standards which are frequently abbreviated. Singular words will be interpreted as plural and plural words will be interpreted as singular where applicable and where full context of the Contract Documents so indicates.
2. **Minimum Quality/Quantity:** In every instance, the quality level or quantity shown or specified is intended as minimum for the work to be performed or provided. Except as otherwise specifically indicated, actual work may either comply exactly with that minimum (within specified tolerances), or may surpass the quality of that minimum within reasonable limits. In complying with requirements, indicated numeric values are either minimum or maximums as

noted or as appropriate for context of requirements. Refer instances of uncertainty to the Architect for decision before proceeding.

- D. **Overlapping and Conflicting Requirements:** Where there appears to be overlapping or conflicting requirements in the drawings and specifications, the order of precedence established as follows:
1. **Order of Precedence:** Any inconsistency in this solicitation or Contract shall be resolved by giving precedence in the following order:
 - a. The scope/overview
 - b. Representations and other instructions.
 - c. Contract clauses.
 - d. The Specifications.
 2. **Industry Standards:** Where compliance with 2 or more industry standards or sets of requirements is specified, and overlapping of those different standards or requirements establishes different or conflicting minimums or levels of quality, the most stringent requirement is intended and will be enforced, unless specifically detailed language written into Contract Documents clearly indicates that a less stringent requirement is to be fulfilled. Refer apparently-equal-but-different requirements, and uncertainties as to which level of quality is more stringent, to the Architect for a decision before proceeding.
 3. **Contractor's Options:** Except for overlapping or conflicting requirements, where more than one set of requirements are specified for a particular unit of work, Options are intended to be the Contractor's regardless of whether or not it is specifically indicated as such.
- E. **Drawing Symbols:** Except as otherwise indicated, graphic symbols used on drawings are those symbols recognized in the construction industry for purposes indicated. Where not otherwise noted, symbols are defined by "Architectural Graphic Standards", published by John Wiley & Sons, Inc., Ninth edition.
1. **Mechanical/Electrical Drawings:** Graphic symbols used on mechanical and electrical drawings are generally aligned with symbols recommended by ASHRAE. Where appropriate, these symbols are supplemented by more specific symbols as recommended by other recognized technical associations including ASME, ASPE, IEEE and similar organizations. Refer instances of uncertainty to the Architect for clarification before proceeding.
- F. **Industry Standards:** Except to the extent that more explicit or more stringent requirements are written directly into Contract Documents, applicable standards of the construction industry have the same force and effect (and are made a part of the Contract Documents by reference) as if copied directly into the Contract Documents, or as if published copies were bound herein, subject to the order of precedence previously stated.

1. **Publication Dates:** Except as otherwise indicated, where compliance with an industry standard is required, conform to the standard in effect on the date of the Invitation for Bids, or, if referred to in any amendments, at the date of such amendments.
2. **Abbreviations and Names:** The following acronyms or abbreviations as referenced in Contract Documents are defined to mean the associated names. Both names and addresses are subject to change, and are believed to be, but are not assured to be, accurate and up-to-date as of the date of Contract Documents:

AA - Aluminum Association www.aluminum.org (202) 862-5100

ACIL - American Council of Independent Laboratories www.acil.org
(202) 887-5872

AIA - American Institute of Architects (800) 242-3837

AISC - American Institute of Steel Construction (800) 644-2400

AISI - American Iron and Steel Institute www.steel.org (202) 452-7100

ANSI - American National Standards Institute www.ansi.org (202) 293-8020

ASME - American Society of Mechanical Engineers www.asme.org (800) 843-2763

ASPE - American Society of Plumbing Engineers www.aspe.org (773) 693-ASPE

ASHRAE - American Society of Heating, Refrigerating and Air-Conditioning
Engineers (800) 527-4723 www.ashrae.org (404) 636-8400

ASTM - American Society for Testing and Materials www.astm.org (610) 832-9585

AWS - American Welding Society (800) 443-9353

FMG - FM Global (Formerly: FM - Factory Mutual System) www.fmglobal.com
(401) 275-3000

IEEE - Institute of Electrical and Electronics Engineers, Inc. www.ieee.org (212) 419-7900

NAAMM - National Association of Architectural Metal Manufacturers www.naamm.org
(312) 332-0405

NECA - National Electrical Contractors Association www.necanet.org (301) 657-3110

NEII - National Elevator Industry, Inc 400 Frank W. Burr Blvd., Teaneck, NJ 07666
(201) 928-2828

NEMA - National Electrical Manufacturers Association www.nema.org (703) 841-3200

NFPA - National Fire Protection Association (800) 344-3555 www.nfpa.org
(617) 770-3000

SSPC - The Society for Protective Coatings www.sspc.org (877) 281-7772

UL - Underwriters Laboratories, Inc. (800) 704-4050 www.ul.com (847) 272-8800

G. Federal Requirements and Standards:

ADA - American Disabilities Act (ADA): Except as otherwise indicated, comply with "American Disabilities Act" (ADA) (Fed. Reg./Vol. 56, No. 144/Part 36).

CFR - Code of Federal Regulations Available from Government Printing Office (888) 293-6498
www.access.gpo.gov/nara/cfr (202) 512-1530

EPA - Environmental Protection Agency www.epa.gov (800) 438-2474

FS - Federal Specification Available from Defense Automated Printing Service (215) 697-6257

OSHA - Occupational Safety and Health Administration (800) 321-OSHA(6742)
www.osha.gov

1.5 SCHEDULES, REPORTS, AND PAYMENTS:

- A. **Coordination:** Coordinate both the listing and timing of reports and other activities required by provisions of this and other sections, so as to provide consistency and logical coordination between the reports. Maintain coordination and correlation between separate reports by updating at monthly or shorter time intervals. Make appropriate distribution of each report and updated report to all parties involved in the work including the Architect.
- B. **Material Schedule:** Submit for approval three (3) copies of the product-listing schedule prior to commencement of the Work, including the names of manufacturers and the trade names or numbers of all materials proposed for use on the project. Provide a written explanation for omissions of data, and for known variations from Contract requirements. Do not use any material until approved by the Architect. Upon request, furnish samples of materials, without cost to the Government, for examination and testing.
- C. **Schedule of Values:** Within twenty (20) working days of the date of Contract award, a Schedule of Values shall be submitted. This schedule is defined as a work item by work item breakdown of cost of each definitive work activity including Contractor's

markup. The Schedule of Values shall be maintained current throughout the life of the Contract and shall be updated monthly to reflect the percentage of work completed under each work item.

1. **The Grand Total** of all of the line items in the Schedule of Values shall equal the Contract Amount.
- D. **Progress Schedule:** Within thirty (30) calendar days of the date of Contract award, the Contractor shall prepare and submit for approval his proposed Progress Schedule for performing the work. At a minimum, the schedule should include the level of detail that is included in the Schedule of Values. The Progress Schedule shall also include the date(s) that each elevator will be taken out of service, the time period each elevator will be under construction, date of inspection and when the elevator will be returned to service. The schedule should indicate that all work of the Contract, including training, submission of record documents and the like, will be completed within the period of performance specified in the Contract SUPPLEMENTARY CONDITIONS. The Progress Schedule will be used in conjunction with the Schedule of Values in determining the value of completed work.
1. **If the progress** of the work of the Contract falls behind schedule, the Contractor shall revise his Progress Schedule so that the work will be completed within the period of performance. Also, if the Contractor's plan for performing the work changes, for whatever reason, he shall revise his Progress Schedule and submit it for approval.
- E. **Permits, Licenses, and Certificates:** For the Government's records, submit copies of utility permits, licenses, certifications, utility inspection reports, releases, notices, receipts for fee payments, judgments, and similar documents, correspondence and records established in conjunction with compliance with standards and regulations bearing upon performance of the Work.

1.6 SUBMITTALS:

- A. **General:** Shop drawings, product data, samples and other work-related submittals are required to amplify, expand and coordinate the information contained in the Contract Documents. The Contractor is responsible for all dimensions, for the design of adequate or proper components, connections and other items, for the inclusion in the work of all elements and incidental details, and for the satisfactory fabrication, construction, operation and coordination of the work.

1. **Approval** of any submission shall not be construed as a complete or precise check of the item submitted but will only indicate that the general methods of design, detailing, construction or other elements under consideration appear to be satisfactory, without specific determinations or particulars.
 2. **Changes to the Contract** will not be made by notations on submittals. In the event submittals returned by the Architect with notations, which in the opinion of the Contractor, constitute additional work for which he is entitled to an adjustment in the Contract Sum or the Contract Time, the Contractor shall comply with the procedure set forth in Article, "Changes," of the GENERAL CONDITIONS.
 3. **Do not permit** submittal copies without an appropriate final "Action" marking by the Architect to be used in connection with the work.
- B. **Submittal Procedures:** Make all submittals to the Architect or to an individual designated by the Architect.
1. **Only the Architect** or an individual designated by the Architect can approve or disapprove submittals. Deviations and variations from the Contract requirements contained in the submittal can be approved only by the Architect or by an individual delegated such authority by the Architect.
 2. **Costs** associated with transmittal of submittals shall be borne by the Contractor.
 3. **Review Time:** Except as specified elsewhere, allow for a review period of thirty (30) calendar days after receipt of the submittals by the Architect. Advise the Architect on each submittal, as to whether processing time is critical to the progress of the work, and if work would be expedited if processing time could be shortened. No extension of time will be authorized because of the Contractor's failure to transmit submittals or re-submittals to the Architect sufficiently in advance of the work. For submittals of items requiring coordination between different trades or subcontractors, review time period starts from the time that all required submittals have been received by the Architect.
 4. **Preparation of Submittals:** Provide permanent marking on each submittal to identify project, date, Contractor, subcontractor, supplier, manufacturer, submittal name and similar information to distinguish it from other submittals. Label as to number and title of specification section, drawing number and detail references, as appropriate. Show Contractor's executed review and approval marking and provide space of not less than 20 sq. in. for the Architect's "Action" marking. Package each submittal appropriately for transmittal and handling. Submittals which are received from sources other than through the Contractor's office will be returned without action.
- C. **Specific Submittal Requirements:** Specific submittal requirements for individual units of work are specified in the applicable specification section. Except as otherwise indicated in the individual specification sections, comply with the requirements specified herein for each type of transmittal.

1. **Product Data:** Collect required product data into a single submittal for each unit of work or system. Mark each copy to show which choices and options are applicable to the project. Where product data has been printed to include information on several similar products, some of which are not required for use on the project, or are not included in this submittal, mark the copies to show clearly that such information is not applicable. The Architect needs four (4) copies of product data for our files/use. The Contractor shall submit as many additional copies as he would like returned, up to a total of six (6), which are in addition to the Architect's four (4).
2. **Shop Drawings:** Provide special notation of dimensions that have been established by field measurement. Highlight, encircle or otherwise indicate deviations from the Contract Documents on the shop drawings.
 - a. **Preparation:** Submit newly prepared information, drawn to accurate scale on sheets not less than 8-1/2" x 11"; except for actual pattern or template type drawings, the maximum sheet size shall not exceed 36" x 48". Indicate the name of the firm that prepared each shop drawing and provide date and appropriate project identification in the title block. One (1) correctable 1-1/2 mil translucent Mylar reproducible print and two (2) blue-line or black-line prints shall be submitted; reproducible will be returned.
 - 1) **Do not reproduce** Contract Documents or copy standard printed information as the basis of shop drawings.
 - 2) **Use standard** architectural scales for all drawings and include a graphic scale on each sheet.
 - b. **Equipment and Systems:** Shop Drawings for equipment and systems shall show ratings (where applicable), and how components are assembled, how they function together, and how they will be installed. Shop drawings, product data, certificate of conformance or compliance, certified test or inspection reports, and other submittals for equipment, systems, and their component parts shall be coordinated and submitted as a unit. Multiple or piecemeal submissions are not acceptable except where prior approval is obtained from the Architect, in which case a list of data to be submitted later shall be included with the first submission.
3. **Samples:** Documentation required specifically for sample submittals includes a generic description of the sample, the sample source or the product name or manufacturer, and compliance with governing regulations and recognized standards. In addition, indicate limitations in availability, sizes, delivery time, and similar characteristics.
 - a. **Preparation:** Where possible provide samples that are physically identical with the proposed material or product to be incorporated in the

work; provide full scale, fully fabricated samples cured and finished in the manner specified. Where variations in color, pattern, or texture are inherent in the material or product represented by the sample, submit not less than 3 units of the sample, which show the full range of variations. Where samples are specified for the Architect's selection of color, texture or pattern, submit a full set of available choices for the material or product. Mount, display, or package samples in the manner specified to facilitate the review of indicated qualities. Prepare samples to match the Architect's sample where so indicated.

- b. **Submittal:** Submit 3 sets of samples in the final submittal, one set will be returned. If the submittal is for the Architect's selection of color, pattern, texture or similar characteristics from a manufacturer's standard range of choices, only a single set of samples is required for a preliminary submittal. The final submittal may then be limited only to those choices selected by the Architect for final incorporation into the Work.
- c. **Mock-Ups** and similar samples specified in individual work sections are special types of samples. Comply with sample submittal requirements to the fullest extent possible. Process transmittal forms to provide a record of activity.

4. **Miscellaneous Submittals:**

- a. **Inspection and Test Reports:** Classify each inspection and test report as being either "shop drawings" or "product data" depending on whether the report is specially prepared for the project, or a standard publication of workmanship control testing at the point of production. Process inspection and test reports accordingly.
- b. **Warranties:** Refer to Article "Products" for specific general requirements on warranties, product bonds, workmanship bonds and maintenance agreements. In addition to copies desired for the Contractor's use, furnish two (2) executed copies of such warranties, bonds or agreements. Provide two (2) additional copies where required for maintenance manuals.

5. **Closeout Submittals:** Refer to Article "Project Closeout" and to individual sections of these specifications for specific submittal requirements of project closeout information, materials, tools, and similar items.

D. **Architect's Action:** The Architect will stamp each submittal with a uniform, self-explanatory action stamp. The action will be as outlined below. Where the submittal must be held for coordination, the Architect will so advise the Contractor without delay.

- 1. **If no changes** to the submittal are required, the number of copies outlined above will be returned to the Contractor, bearing the stamp of the Architect, stating - "APPROVED".

2. **If changes** to the submittal are required, but are of such minor nature that fabrication and/or construction can proceed in accordance with the correction noted by the Architect without resubmission the number of copies outlined above will be returned to the Contractor bearing the Stamp of the Architect stating "APPROVED AS NOTED". The Contractor shall proceed with fabrication and/or construction in accordance with the Architect's corrections, and resubmit corrected copy for the Architect's records.
3. **If changes** to the submittal are required, but are of such nature that fabrication or construction cannot proceed, the number of copies outlined above will be returned to the Contractor, bearing the stamp of the Architect stating - "REVISE AND RESUBMIT." In such a case, the Contractor shall resubmit the drawings, properly corrected. Upon resubmission of shop drawings, if any corrections or changes are made other than those marked by the Architect, the Contractor shall clearly indicate any such corrections or changes made on his own initiative.
4. **If the product does not meet** the specification requirements, the number of copies outlined above will be returned to the Contractor, bearing the stamp of the Architect stating - "REJECTED." In such a case, the Contractor shall submit a new product which complies with the technical specifications.
5. **Other Action:** Where the submittal is returned, marked with the Architect's explanation, for special processing or other Contractor activity, or is primarily for information or record purposes, the submittal will be marked as "NO ACTION."

1.7 TEMPORARY FACILITIES AND CONTROLS:

- A. **Description of Requirements:** This article specifies administrative and procedural requirements for temporary services and facilities, including such items as temporary utility services, temporary construction and support facilities, and project security and protection.
 1. **Use Charges:** No cost or usage charges for temporary services or facilities are chargeable to the Government. Cost or use charges for temporary services or facilities will not be accepted as a basis of claims for a change-order extra. All materials and equipment provided by the Contractor for temporary facilities shall remain the property of the Contractor.
 2. **Materials and Execution:** Provide new materials and equipment for temporary services and facilities; used materials and equipment that are undamaged and in serviceable condition may be used, if acceptable to the Architect. Provide only materials and equipment that are recognized as being suitable for the intended use, by compliance with appropriate standards. Do not use materials of temporary service in permanent installation.
- B. **Quality Assurance:** Comply with the requirements of the District of Columbia Building Code and regulations governing construction and local industry standards, in the installation and maintenance of temporary services and facilities.

1. **Standards:** Comply with the requirements of NFPA Code 241, "Building Construction and Demolition Operations", the ANSI-A10 Series standards for "Safety Requirements for Construction and Demolition", and the NECA National Joint Guideline NJC-6 "Temporary Job Utilities and Services".
 - a. **Refer** to "Guidelines for Bid Conditions for Temporary Job Utilities and Services", as prepared jointly by Associated General Contractors of America (AGC) and American Specialty Contractors, Inc. (ASC) for industry recommendations.
 - b. **Trade Jurisdictions:** The assigned responsibilities for the installation and operation of temporary utilities are not intended to interfere with the normal application of trade regulations and union jurisdictions applicable to the work.
 2. **Inspections:** Inspect and test each service before placing temporary utilities in use. Arrange for required inspections and tests by governing authorities, and obtain required certifications and permits for use.
- C. **Job Conditions:** Provide each temporary service and facility ready for use at each location when the service or facility is first needed to avoid delay in performance of the Work. Maintain, expand as required and modify temporary services and facilities as needed throughout the progress of the Work. Do not remove until services or facilities are no longer needed, or are replaced by the authorized use of completed permanent facilities.
1. **Maintain temporary construction** and support facilities in such a manner as to prevent discomfort to users. Take necessary fire prevention measures. Maintain temporary support facilities in a sanitary manner so as to avoid health problems and other deleterious effects.
- D. **Temporary Utilities:** The Architect will designate a connection point for installation of temporary service to the project to existing service. Arrange with the Architect for an acceptable time when service can be interrupted, where necessary to make connections for temporary services.
1. **Temporary Electric Power Service:** Electrical energy will be supplied by the Government, but the Contractor shall install and maintain all necessary conduit, wiring, and devices needed to execute the work. Install all wiring in flexible conduit or armored cable with minimum No. 12 gage wire. Portable cords for small power tools shall be properly grounded and installed as approved by the Architect. Provide receptacle outlets equipped with ground-fault circuit interrupters, reset button and pilot light, for plug-in connection of power tools and equipment. The Government will not be held responsible for power outages beyond its control.

- a. **Comply with applicable NEMA, NECA and UL standards** and governing regulations for materials and layout of temporary electric service, including those requirements included in the Project Manual.
2. **Temporary Lighting:** Provide general service incandescent lamps of wattage indicated or required for adequate illumination. Protect lamps with guard cages or tempered glass enclosures, where fixtures are exposed to breakage by construction operations. Provide exterior fixtures where fixtures are exposed to weather or moisture. Keep sockets equipped with active lamps. Where feasible, utilize fluorescent type fixtures.
3. **Temporary Sanitary Facilities:** Use of the designated existing Government toilet facilities will be permitted, provided these facilities are properly cleaned and maintained in a condition acceptable to the Government. Immediately prior to Final Acceptance, restore these facilities to the condition prevalent at the time of initial use. Do not clean tools or equipment in building toilet rooms.
4. **Temporary Fire Protection:** Install and maintain temporary fire protection facilities of the types needed to adequately protect against reasonably predictable and controllable fire losses. Comply with applicable recommendations of NFPA Standard 10 "Standard for Portable Fire Extinguishers". Locate fire extinguishers where they are most convenient and effective for their intended purpose, but provide not less than one extinguisher on each floor at or near each usable stairwell. Store combustible materials in clearly-labeled containers in recognized fire-safe locations.
 - a. **Maintain an adequate safeguard** on the site for a period of thirty (30) minutes following the cessation of welding or burning operations, including but not limited to after completion of work at end of shift, lunch breaks and temporary work.

E. Temporary Construction and Support Facilities:

1. **Construction Aids:** Design, construct, and maintain construction aids and miscellaneous general services and facilities as needed to accommodate performance of the work. Construction aids and miscellaneous general services and facilities include, but are not limited to the following:
 - a. **Provide temporary stairs** where ladders are not adequate for performance of work, and until permanent stairs are available. Cover finished permanent stairs which will be exposed to occupants' use, with a durable protective covering of plywood or similar material so that finishes will be undamaged at the time of acceptance.
 - b. **Provide scaffolds** as required for proper execution of the Work. Remove or relocate scaffolds promptly to avoid interference with other trades.
 - c. **Provide adequate guardrails and barriers** at perimeters of each level of construction as work progresses in accordance with District of Columbia requirements and in conformance with requirements of the Special Conditions.
 - d. **Provide adequate facilities** for hoisting materials and employees. Do not permit employees to ride hoists which comply only with requirements for hoisting materials. The Contractor is responsible for selection of type, size and number of facilities. Truck cranes and similar devices used for hoisting are considered as being "tools and equipment" and not temporary facilities.
 - 1) **Temporary Elevator Use:** The House Superintendent will designate an elevator which may be used by the Contractor. The Contractor will not have exclusive use of the elevator; the Government and general public will share use.
 - e. **Hoists and Chutes:** Do not permit free dropping of materials, rubbish or debris, but remove by use of material hoist and/or rubbish chute. Locations of all hoists and chutes are subject to approval by the Architect.
 1. **Protect building** from use of hoists and chutes to prevent damage, marring or staining of permanent work. Brace and guy securely and provide safety devices as required by code.
2. **Project Signage:** No signs, other than safety signs, may be erected on the site unless specifically indicated otherwise.

- F. Security and Protection Facilities:** Provide and maintain all necessary barricades, lights, and other safeguards for the protection of Members of Congress, Government employees, Contractor's employees and the general public from injury. Protect materials and work on the site, whether incorporated in the work or not, against damage or loss from any cause.

1. **Provide a reasonably neat** and uniform appearance in security and protection facilities acceptable to the Architect.
2. **Barricades and Fences:** Comply with recognized standards and code requirements for the erection of substantial, structurally adequate barricades where needed to prevent accidents and losses. Paint with appropriate colors, graphics and warning signs to inform personnel at the site and the public, of the hazard being protected against.
3. **Security Enclosure and Lockup:** Install substantial and durable general temporary enclosure of partially completed areas of construction. Provide locking entrances adequate to prevent unauthorized entrance, vandalism, theft and similar deleterious effects and violations of project security. Provide copies of access keys to the United States Capitol Police.

G. Temporary Controls:

1. **Traffic Control:** Plan vehicular access methods, locations and timing of deliveries in a manner to minimize interference with street and pedestrian traffic and to conform to District of Columbia regulations. Do not block or obstruct public streets, driveways and walkways adjacent to the site at any time during performance of the work without proper authorization. Do not permit trucks of any kind to use existing sidewalks without prior authorization of the Architect.
2. **Collection and Disposal of Wastes:** Establish a system for daily collection and disposal of waste materials from construction areas and elsewhere on the site. Enforce requirements strictly. Do not hold collected materials at the site longer than 7 days during normal weather or 3 days when the daily temperature is expected to rise above 80 deg. F (27 deg. C). Handle waste materials that are hazardous, dangerous, or unsanitary separately from other inert waste by containerizing appropriately. Dispose of waste material in a lawful manner.
 - a. **Burying or burning** of waste materials on the site will not be permitted.
 - b. **Washing waste** materials down sewers or into waterways will not be permitted.
 - c. **Provide rodent-proof** containers located on each floor level of construction work, to encourage depositing of garbage and similar wastes by construction personnel.
3. **Janitorial Services:** Provide daily janitorial services for temporary offices, first aid stations, toilets, wash facilities, lunchrooms and similar areas. Require users of other temporary facilities to help maintain a clean and orderly premises.
4. **Dust Control:** During periods of construction activity creating dust conditions sprinkle periodically the site areas disturbed by Contractor's operation or treat with dust suppressors to control dust. Dry power brooming will not be permitted. Use vacuuming, wet mopping, wet sweeping or wet power brooming. Air blowing will be permitted only for cleaning non-particulate debris. Use only wet cutting procedures for unit masonry and concrete.

5. **Noise Control:** Avoid the use of tools and equipment that produce harmful noise. Restrict the use of noise making tools and equipment to hours of use that will minimize noise complaints from persons or firms near the project site. Coordinate such work with the Architect and the House Superintendent's Office.
 6. **Environmental Protection:** Provide general protection facilities, operate temporary facilities, conduct construction activities, and enforce strict discipline for personnel on the site in ways and methods that comply with environmental regulations, and that minimize the possibility that air, waterways and subsoil might be contaminated or polluted, or that other undesirable effects might result from the performance of work at the site.
- H. **Installation, Operation, Termination and Removal:** Use qualified tradesmen for installation of temporary services and facilities. Locate temporary services and facilities where they will serve the entire project adequately and result in minimum interference with the performance of the Work.
1. **Supervision:** Limit availability of temporary services and facilities to essential and intended uses to minimize waste and abuse. Do not permit temporary installations to be abused or endangered. Do not allow hazardous, dangerous or unsanitary conditions to develop or persist on the project site.
 2. **Maintenance:** Operate and maintain temporary services and facilities in good operating condition throughout the time of use and until removal is authorized. Protect from damage by freezing temperatures and similar elements.
 3. **Termination and Removal:** Unless the Architect requests that it be maintained for a longer period of time, remove each temporary service and facility promptly when the need for it or a substantial portion of it has ended, or when it has been replaced by the authorized use of a permanent facility, or no later than substantial completion. Repair damaged work, clean exposed surfaces and replace work which cannot be satisfactorily repaired. Contract Time includes the time required for final cleanup of premises.
 - a. **Immediately prior to final acceptance,** clean and renovate permanent services and facilities that have been used to provide temporary services and facilities during the construction period.

1.8 PRODUCTS:

- A. **General:** Refer to Article, "Materials and Workmanship," of the GENERAL CONDITIONS. After execution of the Contract, the Contractor's requests for changes in the products, materials, equipment and methods of construction required by the Contract Documents are considered requests for "Contract Modifications," and are subject to the requirements specified in Architect of the Capitol, "Official Procedure for Making Changes in Contracts." Revisions to the Contract Documents, where requested by the Architect are considered as "Changes" not substitutions.

- B. **Quality Assurance:** Compatibility of products is a basic requirement of product selection. When the Contractor is given the option of selecting between two or more products for use on the project, the product selected must be compatible with other products previously selected, even if the products previously selected were also Contractor options. The complete compatibility between various choices available to the Contractor is not assured by the various requirements of the Contract Documents, but must be provided by the Contractor. Provide a single product for each required product selection, regardless of whether that product selection is provided by more than one subcontractor. Do not alter product brands or series for a given product selection during the life of the Contract without written approval of the Architect.
1. **Source Limitations:** To the fullest extent possible and subject to the restrictions of the "Buy American Act," provide products of the same generic kind, from a single source, for each unit of work.
- C. **Product Delivery, Storage, and Handling:** Deliver, store, and handle products in accordance with manufacturer's recommendations, using means and methods that will prevent damage, deterioration and loss, including theft. Control delivery schedules to minimize long-term storage at the site and to prevent overcrowding of construction spaces, and to ensure minimum holding or storage times for items known or recognized to be flammable, hazardous, easily damaged, or sensitive to deterioration or loss.
1. **Deliver products** to the site in the manufacturer's sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting, and installing.
 2. **Store products** at the site in a manner that will facilitate inspection and measurement of quantity or counting of units, and in conformance with manufacturer's instructions.
 3. **Store heavy materials** away from the project structure in a manner that will not endanger the supporting construction.
- D. **General Product Compliance:** Requirements for individual products are indicated in the Contract Documents; compliance with these requirements is in itself a contract requirement. These requirements may be specified in any one of several different specifying methods, or in any combination of these methods.
1. **Procedures for Selecting Products:** The Contractor's options in selecting products are limited by requirements of the Contract Documents and governing regulations. They are not controlled by industry traditions or procedures experienced by the Contractor on previous construction projects.
 - a. **Performance Specification Requirements:** Where the specifications require compliance with indicated performance requirements, provide products that comply with the specific performance requirements

indicated, and that are recommended by the manufacturer for the application indicated. The manufacturer's recommendations may be contained in published product literature, or by the manufacturer's individual certification of performance. General overall performance of a product is implied where the product is specified for specific performances.

- b. **Compliance with Standards, Codes and Regulations:** Where the specifications require only compliance with an imposed standard, code or regulation, the Contractor has the option of selecting a product that complies with specification requirements, including the standards, codes and regulations.
- c. **Visual Matching:** Where matching an established sample is required, the final judgement of whether a product proposed by the Contractor matches the sample satisfactorily will be determined by the Architect. Where there is no product that matches the sample satisfactorily and also complies with other specified requirements, comply with the provisions of the Contract Documents concerning "Change Orders" for the selection of a matching product in another product category, or for non-compliance with specified requirements.
- d. **Visual Selection:** Except as otherwise indicated, where specified product requirements include the phrase "...as selected from the manufacturer's standard colors, patterns, textures..." or similar phrases, the Contractor has the option of selecting the product and manufacturer, provided the selection complies with other specified requirements. The Architect is subsequently responsible for selecting the final color, pattern and texture from the product line selected by the Contractor.

E. **General Product Requirements:** Provide products that comply with the requirements of the Contract Documents and that are undamaged and, unless otherwise indicated, unused at the time of installation. Provide products that are complete with all accessories, trim, finish, safety guards and other devices and details needed for a complete installation and for the intended use and effect.

- 1. **Provide products** that are essentially the standard catalogued products of manufacturers regularly engaged in production of such products and that are the manufacturer's latest standard design that complies with the specification requirements. Equipment shall essentially duplicate items that have been in satisfactory commercial and industrial use at least two years, or more if otherwise specified, prior to bid opening; or in lieu thereof shall have been used and operated in a test installation which, in the opinion of the Architect, duplicate its field performance for the same period of time. The Architect reserves the right to require the Contractor to submit evidence to this effect for his approval. When two units of the same class of equipment are required, these units shall be the product of a single manufacturer; however, the component parts of the system need not be the products of the same manufacturer.

2. **Provide standard**, domestically produced products for which the manufacturer has published assurances that the products and its parts are likely to be available to the Government at a later date.
 3. **Nameplates**: Except as otherwise indicated for required labels and operating data, do not permanently attach or imprint manufacturer's or producer's nameplates or trademarks on exposed surfaces of products which will be exposed to view either in occupied spaces or on the exterior of the completed project.
- F. **Installation of Products**: Except as otherwise indicated in individual sections of these specifications, comply with the manufacturer's instructions and recommendations for installation of the products in the applications indicated. Anchor each product securely in place, accurately located and aligned with other work. Clean exposed surfaces and protect surfaces as necessary to ensure freedom from damage and deterioration at time of acceptance.

1.9 PROJECT CLOSEOUT:

- A. **Definitions**: "Project Closeout" is the term used to describe certain collective project requirements, indicating completion of the work that are to be fulfilled near the end of the Contract Time in preparation for final acceptance and occupancy of the Work by the Government, as well as final payment to the Contractor and the normal termination of the Contract.
1. **Time of closeout** is directly related to "Final Acceptance." Therefore, the time of closeout may be either a single time period for the entire Work or a series of time periods for individual elements of the Work that have been certified as substantially complete at different dates. This time variation, if any, shall be applicable to the other provisions of this Division.
- B. **Final Cleaning**: Special cleaning requirements for specific units of Work are included in the appropriate sections of Division 2 through 16. General Cleaning during the regular progress of the Work is required by the GENERAL CONDITIONS and is included under Article "Temporary Facilities and Controls".
1. **Cleaning**: Provide final cleaning of the Work at the time indicated. Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit of work to the condition expected from a normal, commercial building cleaning and maintenance program. Comply with the manufacturer's instructions for operations.
 - a. **Complete the following** cleaning operations before requesting the Architect's inspection for Final Acceptance.
 - b. **Remove labels** which are not required as permanent labels.
 - c. **Clean transparent materials**, including mirrors and glass in doors and windows, to a polished condition. Remove putty and other substances

which are noticeable as vision-obscuring materials. Replace chipped or broken glass and other damaged transparent materials.

- d. **Clean exposed** exterior and interior hard-surfaced finishes to a dust-free condition, free of dust, stains, films and similar noticeable distracting substances. Restore reflective surfaces to their original reflective condition. Leave concrete floors broom clean. Vacuum carpeted surfaces.
- e. **Wipe surfaces** of mechanical and electrical equipment clean. Remove excess lubrication and other substances. Clean plumbing fixtures to a sanitary condition. Clean light fixtures and lamps.
- f. **Clean the project site**, including landscape development areas, of rubbish, litter and other foreign substances. Sweep paved areas to a broom clean condition; remove stains, spills and other foreign deposits. Rake grounds that are neither paved nor planted, to a smooth even-textured surface.

- 2. **Pest Control:** Engage an experienced exterminator to make a final inspection of the project, and to rid the project of rodents, insects and other pests.
- 3. **Compliance:** Comply with safety standards and governing regulations for cleaning operations. Remove waste materials from the site and dispose of in a lawful manner.

- a. **Where extra materials** of value remaining after completion of associated work have become the Government's property, salvage or dispose of these materials to the Government's best advantage as directed.

C. **Record Document Submittals:** Specific requirements for record documents are indicated in the individual sections of these specifications. Other requirements are indicated in the GENERAL CONDITIONS. General submittal requirements are indicated in the various "Submittals" articles of individual sections of the Project Manual.

- 1. **Do not use** record documents for construction purposes; protect from deterioration and loss in a secure, fire-resistive location; provide access to record documents for the Architect's reference during normal working hours.
- 2. **Record Documents:** Maintain a record set of blue or black line white-prints of contract drawings and shop drawings in a clean, undamaged condition. Mark-up the set of record documents to show the actual installation where the installed work varies substantially from the work as originally shown. Mark whichever drawing is most capable of showing the actual "field" condition ("as-built" condition) fully and accurately; however, where shop drawings are used for mark-up, record a cross-reference at the corresponding location on the working drawings. Give particular attention to concealed work that would be difficult to measure and record at a later date.
 - a. **Mark record sets** with red erasable pencil and, where feasible, use other colors to distinguish between variations in separate categories of work.

- b. **Note related** change-order numbers where applicable.
 - c. **Organize record drawing sheets** into manageable sets, bind with durable paper cover sheets, and print suitable titles, dates and other identification on the cover of each set.
 - d. **Materials and Tools:** Refer to individual sections of the Project Manual for required quantities of spare parts, extra and overrun stock, maintenance tools and devices, keys, and similar physical units to be submitted.
 - e. **Record the date** of each revision recorded in the Title Block or in a uniform location for each sheet.
- D. **Maintenance Manuals:** Organize operating and maintenance data into suitable sets of manageable size. Bind data into individual binders properly identified and indexed. Bind each set of data in a heavy-duty 2-inch, 3-ring vinyl-covered binder, with pocket folders for folded sheet information. Mark the appropriate identification on both front and spine of each binder.
- E. **Warranties and Bonds:** At Final Completion compile two copies of each required warranty and bond properly executed by the Contractor, or by the Contractor, subcontractor, supplier, or manufacturer. Organize the warranty documents into an orderly sequence based on the table of contents of the Project Manual.
- 1. **Bind warranties** and bonds in heavy-duty, commercial quality, durable 3-ring vinyl covered loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8-1/2" by 11" paper.
 - a. **Provide heavy** paper dividers with celluloid covered tabs for each separate warranty. Mark the tab to identify the product or installation. Provide a typed description of the product or installation, including the name of the product, and the name, address and telephone number of the installer.
 - b. **Identify each** binder on the front and the spine with the typed or printed title "WARRANTIES AND BONDS," the Project title or name, project number, and the name of the Contractor.
 - 2. **When Operating and Maintenance Manuals** are required for warranted construction, provide additional copies of each required warranty, as necessary, for inclusion in each required manual.
- F. **General Operating and Maintenance Instructions:** Arrange for each installer of operating equipment and other work that requires regular or continuing maintenance, to meet at the site with the Government's personnel to provide necessary basic instruction in the proper operation and maintenance of the entire Work. Where installers are not experienced in the required procedures, include instruction by the manufacturer's representatives.
- G. **Closeout Submittals:** Prior to requesting Final Inspection, submit the following:

1. Project Record Documents, properly annotated and in the format required.
 2. Copies of Warranties and Bonds.
 3. Operation and Maintenance data.
 4. All required operating or special tools required in individual sections.
 5. All required keys and keying schedules.
- H. **Prerequisites to Final Acceptance:** Complete the following before requesting the Architect's final inspection for certification of final acceptance, and final payment as required by the GENERAL CONDITIONS. List known exceptions, if any, in the request.
1. **Submit the final payment** request with final releases and supporting documentation not previously submitted and accepted. Include certificates of insurance for products and completed operations where required.
 2. **Submit an updated final statement**, accounting for final additional changes to the Contract Sum.
 3. **Submit a certified copy** of the Architect's final punch-list of itemized work identified to be completed or corrected, stating that each item has been completed or otherwise resolved for acceptance and has been endorsed and dated by the Architect.
 4. **Submit final meter readings for utilities**, a measured record of stored fuel, and similar data either as of the date of substantial completion, or else when the Government took possession of and responsibility for corresponding elements of the Work.
 5. **Submit** consent of surety.
- I. **Reinspection Procedures:** The Architect will reinspect the Work upon receipt of the Contractor's notice that the work, including punchlist items resulting from earlier inspections, has been completed, except for these items whose completion has been delayed because of circumstances that are acceptable to the Architect.
- J. **Removal of Protection:** Except as otherwise indicated or requested by the Architect, remove temporary protection devices and facilities which were installed during the course of the work to protect previously completed work during the remainder of the construction period.

END OF DIVISION 1

SECTION 15050N

BASIC MECHANICAL MATERIALS AND METHODS

09/01

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

ASTM INTERNATIONAL (ASTM)

ASTM B 117(2002) Operating Salt Spray (Fog) Apparatus

1.2 RELATED REQUIREMENTS

This section applies to all sections of Division 15, "Mechanical" of this project specification, unless specified otherwise in the individual section.

1.3 QUALITY ASSURANCE

1.3.1 Material and Equipment Qualifications

Provide materials and equipment that are standard products of manufacturers regularly engaged in the manufacture of such products, which are of a similar material, design and workmanship. Standard products shall have been in satisfactory commercial or industrial use for 2 years prior to bid opening. The 2-year use shall include applications of equipment and materials under similar circumstances and of similar size. The product shall have been for sale on the commercial market through advertisements, manufacturers' catalogs, or brochures during the 2 year period.

1.3.3 Service Support

The equipment items shall be supported by service organizations. Submit a certified list of qualified permanent service organizations for support of the equipment which includes their addresses and qualifications. These service organizations shall be reasonably convenient to the equipment installation and able to render satisfactory service to the equipment on a regular and emergency basis during the warranty period of the contract.

1.3.4 Manufacturer's Nameplate

Each item of equipment shall have a nameplate bearing the manufacturer's name, address, model number, and serial number securely affixed in a conspicuous place; the nameplate of the distributing agent will not be acceptable.

1.3.5 Modification of References

In each of the publications referred to herein, consider the advisory provisions to be mandatory, as though the word, "shall" had been substituted for "should" wherever it appears. Interpret references in these publications to the "authority having jurisdiction", or words of similar meaning, to mean the Contracting Officer.

1.3.5.1 Definitions

For the International Code Council (ICC) Codes referenced in the contract documents, advisory provisions shall be considered mandatory, the word "should" shall be interpreted as "shall." Reference to the "code official" shall be interpreted to mean the "Contracting Officer." For government owned property, references to the "owner" shall be interpreted to mean the "Contracting Officer." For leased facilities, references to the "owner" shall be interpreted to mean the "lessor." References to the "permit holder" shall be interpreted to mean the "Contractor."

1.3.5.2 Administrative Interpretations

For ICC Codes referenced in the contract documents, the provisions of Chapter 1, "Administrator," do not apply. These administrative requirements are covered by the applicable Federal Acquisition Regulations (FAR) included in this contract and by the authority granted to the Contracting Officer's Technical Representative (COTR) to administer the construction of this project. References in the ICC Codes to sections of Chapter 1, shall be applied appropriately by the Contracting Officer as authorized by his administrative cognizance and the FAR.

1.4 DELIVERY, STORAGE, AND HANDLING

Handle, store, and protect equipment and materials to prevent damage before and during installation in accordance with the manufacturer's recommendations, and as approved by the Contracting Officer. Replace damaged or defective items.

1.7 INSTRUCTION TO GOVERNMENT PERSONNEL

When specified in other sections, furnish the services of competent instructors to give full instruction to the designated Government personnel in the adjustment, operation, and maintenance, including pertinent safety requirements, of the specified equipment or system. Instructors shall be thoroughly familiar with all parts of the installation and shall be trained in operating theory as well as practical operation and maintenance work.

Instruction shall be given during the first regular work week after the equipment or system has been accepted and turned over to the Government for regular operation. The number of man-days (8 hours per day) of instruction furnished shall be as specified in the individual section. When more than 4 man-days of instruction are specified, use approximately half of the time for classroom instruction. Use other time for instruction with the equipment or system.

When significant changes or modifications in the equipment or system are made under the terms of the contract, provide additional instruction to acquaint the operating personnel with the changes or modifications.

1.8 ACCESSIBILITY

Install all work so that parts requiring periodic inspection, operation, maintenance, and repair are readily accessible. Install concealed valves, expansion joints, controls, dampers, and equipment requiring access, in locations freely accessible through access doors.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

3.1 PAINTING OF NEW EQUIPMENT

New equipment painting shall be factory applied or shop applied, and shall be as specified herein, and provided under each individual section.

3.1.1 Factory Painting Systems

Manufacturer's standard factory painting systems may be provided subject to certification that the factory painting system applied will withstand 125 hours in a salt-spray fog test, except that equipment located outdoors shall withstand 500 hours in a salt-spray fog test. Salt-spray fog test shall be in accordance with ASTM B 117, and for that test the acceptance criteria shall be as follows: immediately after completion of the test, the paint shall show no signs of blistering, wrinkling, or cracking, and no loss of adhesion; and the specimen shall show no signs of rust creepage beyond 0.125 inch on either side of the scratch mark.

The film thickness of the factory painting system applied on the equipment shall not be less than the film thickness used on the test specimen. If manufacturer's standard factory painting system is being proposed for use on surfaces subject to temperatures above 120 degrees F, the factory painting system shall be designed for the temperature service.

3.1.2 Shop Painting Systems for Metal Surfaces

Clean, pretreat, prime and paint metal surfaces; except aluminum surfaces need not be painted. Apply coatings to clean dry surfaces. Clean the surfaces to remove dust, dirt, rust, oil and grease by wire brushing and solvent degreasing prior to application of paint, except metal surfaces subject to temperatures in excess of 120 degrees F shall be cleaned to bare metal.

Where more than one coat of paint is specified, apply the second coat after the preceding coat is thoroughly dry. Lightly sand damaged painting and retouch before applying the succeeding coat. Color of finish coat shall be aluminum or light gray.

a. Temperatures Less Than 120 Degrees F: Immediately after cleaning, the metal surfaces subject to temperatures less than 120 degrees F shall receive one coat of pretreatment primer applied to a minimum dry film thickness of 0.3 mil, one coat of primer applied to a minimum dry film thickness of one mil; and two coats of enamel applied to a minimum dry film thickness of one mil per coat.

SECTION 15080

THERMAL INSULATION FOR MECHANICAL SYSTEMS

01/05

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only. At the discretion of the Government, the manufacturer of any material supplied will be required to furnish test reports pertaining to any of the tests necessary to assure compliance with the standard or standards referenced in this specification.

AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR-
CONDITIONING ENGINEERS (ASHRAE)

ASHRAE 90.1(2001; various Errata) Energy Standard for Buildings Except Low-Rise
Residential Buildings

ASHRAE 90.2(2001) Energy Efficient Design of Low-Rise Residential Buildings

ASTM INTERNATIONAL (ASTM)

ASTM C 195(2000) Mineral Fiber Thermal Insulating Cement

ASTM C 449/C 449M(2000) Mineral Fiber Hydraulic-Setting Thermal Insulating and
Finishing Cement

ASTM C 547(2003) Mineral Fiber Pipe Insulation

ASTM C 552(2003) Cellular Glass Thermal Insulation

ASTM C 553(2002) Mineral Fiber Blanket Thermal Insulation for Commercial and
Industrial Applications

ASTM C 647(1995; R 2000) Properties and Tests of Mastics and Coating Finishes for
Thermal Insulation

ASTM C 665(2001e1) Mineral-Fiber Blanket Thermal Insulation for Light Frame
Construction and Manufactured Housing

ASTM C 920(2002) Elastomeric Joint Sealants

ASTM C 921(2003a) Jackets for Thermal Insulation

ASTM E 2231(2002) Specimen Preparation and Mounting of Pipe and Duct Insulation Materials to Assess Surface Burning Characteristics

ASTM E 84(2004) Surface Burning Characteristics of Building Materials

ASTM E 96(2000e1) Water Vapor Transmission of Materials

MANUFACTURERS STANDARDIZATION SOCIETY OF THE VALVE AND FITTINGS INDUSTRY (MSS)

MSS SP-69(2002) Pipe Hangers and Supports - Selection and Application

MIDWEST INSULATION CONTRACTORS ASSOCIATION (MICA)

MICA Insulation Stds(1999) National Commercial & Industrial Insulation Standards

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

NFPA 255(2000) Method of Test of Surface Burning Characteristics of Building Materials

U.S. DEPARTMENT OF DEFENSE (DOD)

MIL-A-3316(Rev C; Am 2) Adhesives, Fire-Resistant, Thermal Insulation

UNDERWRITERS LABORATORIES (UL)

UL 723(2003) Test for Surface Burning Characteristics of Building Materials

1.2 SYSTEM DESCRIPTION

Field-applied insulation and accessories on mechanical systems shall be as specified herein; factory-applied insulation is specified under the piping, duct or equipment to be insulated.

1.3 GENERAL QUALITY CONTROL

1.3.1 Standard Products

Provide field-applied insulation for heating, ventilating, and cooling (HVAC) air distribution systems and piping systems which are located within, on, under, and adjacent to buildings; and for plumbing systems. Materials shall be the standard products of manufacturers regularly engaged in the manufacture of such products and shall essentially duplicate items that have been in satisfactory use for at least 2 years prior to bid opening.

1.3.2 Installer's Qualifications

Qualified installers shall have successfully completed three or more similar type jobs within the last 5 years.

1.3.3 Surface Burning Characteristics

Unless otherwise specified, insulation shall have a maximum flame spread index of 25 and a maximum smoke developed index of 50 when tested in accordance with ASTM E 84. Flame spread, and smoke developed indexes, shall be determined by ASTM E 84, NFPA 255 or UL 723. Insulation shall be tested in the same density and installed thickness as the material to be used in the actual construction. Test specimens shall be prepared and mounted according to ASTM E 2231. Insulation materials located exterior to the building perimeter are not required to be fire rated.

1.3.4 Identification of Materials

Packages or standard containers of insulation, jacket material, cements, adhesives, and coatings delivered for use, and samples required for approval shall have manufacturer's stamp or label attached giving the name of the manufacturer and brand, and a description of the material. Insulation packages and containers shall be asbestos free.

1.4 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. The following shall be submitted in accordance with Section 01000:

SD-03 Product Data

General Materials (G)

Adhesives (G)

Sealants (G)

Pipe Insulation Materials (G)

Jackets (G)

A complete list of materials, including manufacturer's descriptive technical literature, performance data, catalog cuts, and installation instructions. The product number, k-value, thickness and furnished accessories for each mechanical system requiring insulation shall be included. Materials furnished under this section of the specification shall be submitted at one time.

1.5 STORAGE

Materials shall be delivered in the manufacturer's unopened containers. Materials delivered and placed in storage shall be provided with protection from weather, humidity, dirt, dust and other contaminants. The Contracting Officer may reject insulation material and supplies that become dirty, dusty, wet, or contaminated by some other means.

1.6 RECYCLED MATERIALS

Provide thermal insulation containing recycled materials to the extent practicable, provided that the materials meets all other requirements of this section. The minimum recycled material content of the following insulation are:

Rock Wool - 75 percent slag of weight
Fiberglass - 20-25 percent glass cullet by weight
Rigid Foam - 9 percent recovered material

PART 2 PRODUCTS

2.1 GENERAL MATERIALS

Insulation material shall conform to Table 1. Insulation thickness shall be as listed in Table 2. Insulation exterior shall be cleanable, grease resistant, non-flaking and non-peeling. Materials shall be compatible and shall not contribute to corrosion, soften, or otherwise attack surfaces to which applied in either wet or dry state. Materials shall be asbestos free and conform to the following:

2.1.1 Adhesives

2.1.1.1 Mineral Fiber Insulation Cement

Cement shall be in accordance with ASTM C 195.

2.1.1.2 Lagging Adhesive

Lagging is the material used for thermal insulation, especially around a cylindrical object. This may include the insulation as well as the cloth/material covering the insulation. Lagging adhesives shall be nonflammable and fire-resistant and shall have a maximum flame spread index of 25 and a maximum smoke developed index of 50 when tested in accordance with ASTM E 84. Adhesive shall be MIL-A-3316, Class 1, pigmented white and be suitable for bonding fibrous glass cloth to faced and unfaced fibrous glass insulation board; for bonding cotton brattice cloth to faced and unfaced fibrous glass insulation board; for sealing edges of and bonding fibrous glass tape to joints of fibrous glass board; for bonding lagging cloth to thermal insulation; or Class 2 for attaching fibrous glass insulation to metal surfaces. Lagging adhesives shall be applied in strict accordance with the manufacturer's recommendations for pipe and duct insulation.

2.1.2 Contact Adhesive

Adhesives may be any of, but not limited to, the neoprane based, rubber based, or elastomeric type that have a maximum flame spread index of 25 and a maximum smoke developed index of 50 when tested in accordance with ASTM E 84. The adhesive shall not adversely affect, initially or in service, the insulation to which it is applied, nor shall it cause any corrosive effect on metal to which it is applied. Any solvent dispersing medium or volatile component of the adhesive shall have no objectionable odor and shall not contain any benzene or carbon tetrachloride. The dried adhesive shall not emit nauseous, irritating, or toxic volatile matters or aerosols when the adhesive is heated to any temperature up to 212 degrees F. The dried adhesive shall be nonflammable and fire resistant. Natural cross-ventilation, local (mechanical) pickup, and/or general area (mechanical) ventilation shall be used to prevent an accumulation of solvent vapors, keeping in mind the ventilation pattern must remove any heavier-than-air solvent vapors from lower levels of the workspaces. Gloves and spectacle-type safety glasses are recommended in accordance with safe installation practices.

2.1.3 Caulking

ASTM C 920, Type S, Grade NS, Class 25, Use A.

2.1.4 Finishing Cement

ASTM C 449/C 449M: Mineral fiber hydraulic-setting thermal insulating and finishing cement. All cements that may come in contact with Austenitic stainless steel must comply with ASTM C 795.

2.1.5 Fibrous Glass Cloth and Glass Tape

Fibrous glass cloth, with 20X20 maximum mesh size, and glass tape shall have maximum flame spread index of 25 and a maximum smoke developed index of 50 when tested in accordance with ASTM E 84. Tape shall be 4 inch wide rolls. Class 3 tape shall be 4.5 ounces/square yard.

2.1.6 Staples

Outward clinching type ASTM A 167, Type 304 or 316 stainless steel.

2.1.7 Jackets

2.1.8 Vapor Retarder Not Required

ASTM C 921, Type II, Class D, minimum puncture resistance 50 Beach units on all surfaces except ductwork, where Type IV, maximum moisture vapor transmission 0.10, a minimum puncture resistance of 25 Beach units is acceptable. Jacket shall have a maximum flame spread index of 25 and a maximum smoke developed index of 50 when tested in accordance with ASTM E 84.

2.1.9 Sealants

Sealants shall be chosen from the butyl polymer type, the styrene-butadiene rubber type, or the butyl type of sealants. Sealants shall have a maximum moisture vapor transmission of 0.02 perms, and a maximum flame spread index of 25 and a maximum smoke developed index of 50 when tested in accordance with ASTM E 84.

2.2 PIPE INSULATION MATERIALS

The Contractor shall comply with all EPA requirements. Pipe insulation materials shall be limited to those listed herein and shall meet the following requirements:

2.2.1 Aboveground Cold Pipeline -30 to 60 degrees F

Insulation for outdoor, indoor, exposed or concealed applications, shall be as follows:

- a. Cellular Glass: ASTM C 552, Type II, and Type III. Supply the insulation with manufacturer's recommended factory-applied jacket.
- b. Flexible Elastomeric Cellular Insulation: ASTM C 534, Grade 1, Type I or II. Type II shall have vapor retarder skin on one or both sides of the insulation.
- c. Phenolic Insulation: ASTM C 1126, Type III. Phenolic insulations shall comply with ASTM C 795 and with the ASTM C 665 paragraph Corrosiveness. Supply the insulation with manufacturer's recommended factory-applied jacket.
- d. Polyisocyanurate Insulation: ASTM C 591, type I. Supply the insulation with manufacturer's recommended factory-applied vapor retarder.

PART 3 EXECUTION

3.1 APPLICATION - GENERAL

Insulation shall only be applied to unheated and uncooled piping and equipment. Flexible elastomeric cellular insulation shall not be compressed at joists, studs, columns, ducts, hangers, etc. The insulation shall not pull apart after a one hour period; any insulation found to pull apart after one hour, shall be replaced.

3.1.1 Installation

Except as otherwise specified, material shall be installed in accordance with the manufacturer's written instructions. Material such as rust, scale, dirt and moisture shall be removed from surfaces to receive insulation. Insulation shall be kept clean and dry. Insulation shall not be removed from its shipping containers until the day it is ready to use and shall be returned to like containers or equally protected from dirt and moisture at

the end of each workday. Insulation that becomes dirty shall be thoroughly cleaned prior to use. If insulation becomes wet or if cleaning does not restore the surfaces to like new condition, the insulation will be rejected, and shall be immediately removed from the jobsite. Joints shall be staggered on multi layer insulation. Mineral fiber thermal insulating cement shall be mixed with demineralized water when used on stainless steel surfaces. Insulation, jacketing and accessories shall be installed in accordance with MICA Insulation Stds plates except where modified herein or on the drawings.

3.1.2 Painting and Finishing

Painting shall match existing.

3.1.3 Pipes/Ducts/Equipment which Require Insulation

Insulation is required on all pipes, ducts, or equipment, except for omitted items, as specified.

3.2 PIPE INSULATION INSTALLATION

3.2.1 Pipe Insulation

3.2.1.1 General

Pipe insulation shall be installed on aboveground cold pipeline systems as specified below to form a continuous thermal retarder, including straight runs, fittings and appurtenances unless specified otherwise. Installation shall be with full length units of insulation and using a single cut piece to complete a run. Cut pieces or scraps abutting each other shall not be used.

3.2.1.2 Pipes Passing Through Walls, Roofs, and Floors

- a. Pipe insulation shall be continuous through the sleeve.
- b. An aluminum jacket with factory applied moisture retarder shall be provided over the insulation wherever penetrations require sealing.
- c. Where pipes penetrate interior walls, the aluminum jacket shall extend 2 inches beyond either side of the wall and shall be secured on each end with a band.
- d. Where penetrating floors, the aluminum jacket shall extend from a point below the backup material to a point 10 inches above the floor with one band at the floor and one not more than 1 inch from the end of the aluminum jacket.
- e. Where penetrating waterproofed floors, the aluminum jacket shall extend from below the backup material to a point 2 inches above the flashing with a band 1 inch from the end of the aluminum jacket.

f. Where penetrating exterior walls, the aluminum jacket required for pipe exposed to weather shall continue through the sleeve to a point 2 inches beyond the interior surface of the wall.

g. Where penetrating roofs, pipe shall be insulated as required for interior service to a point flush with the top of the flashing and sealed with vapor retarder coating. The insulation for exterior application shall butt tightly to the top of flashing and interior insulation. The exterior aluminum jacket shall extend 2 inches down beyond the end of the insulation to form a counter flashing. The flashing and counter flashing shall be sealed underneath with caulking.

3.2.1.3 Pipes Passing Through Hangers

a. Insulation, whether hot or cold application, shall be continuous through hangers. All horizontal pipes 2 inches and smaller shall be supported on hangers with the addition of a Type 40 protection shield to protect the insulation in accordance with MSS SP-69. Whenever insulation shows signs of being compressed, or when the insulation or jacket shows visible signs of distortion at or near the support shield, insulation inserts as specified below for piping larger than 2 inches shall be installed.

b. Horizontal pipes larger than 2 inches at 60 degrees F and above shall be supported on hangers in accordance with MSS SP-69.

c. Horizontal pipes larger than 2 inches and below 60 degrees F shall be supported on hangers with the addition of a Type 40 protection shield in accordance with MSS SP-69. An insulation insert of cellular glass or the necessary strength polyisocyanurate shall be installed above each shield. The insert shall cover not less than the bottom 180-degree arc of the pipe. Inserts shall be the same thickness as the insulation, and shall extend 2 inches on each end beyond the protection shield. When insulation inserts are required per the above, and the insulation thickness is less than 1 inch, wooden or cork dowels or blocks may be installed between the pipe and the shield to prevent the weight of the pipe from crushing the insulation, as an option to installing insulation inserts. The insulation jacket shall be continuous over the wooden dowel, wooden block, or insulation insert.

d. Vertical pipes shall be supported with either Type 8 or Type 42 riser clamps with the addition of two Type 40 protection shields in accordance with MSS SP-69 covering the 360-degree arc of the insulation. An insulation insert of cellular glass or calcium silicate shall be installed between each shield and the pipe. The insert shall cover the 360-degree arc of the pipe. Inserts shall be the same thickness as the insulation, and shall extend 2 inches on each end beyond the protection shield. When insulation inserts are required per the above, and the insulation thickness is less than 1 inch, wooden or cork dowels or blocks may be installed between the pipe and the shield to prevent the hanger from crushing the insulation, as an option instead of installing insulation inserts. The insulation jacket shall be continuous over the wooden dowel, wooden block, or insulation insert. The vertical weight of the pipe shall be supported with hangers located in a

horizontal section of the pipe. When the pipe riser is longer than 30 feet, the weight of the pipe shall be additionally supported with hangers in the vertical run of the pipe that are directly clamped to the pipe, penetrating the pipe insulation. These hangers shall be insulated and the insulation jacket sealed as indicated herein for anchors in a similar service.

e. Inserts shall be covered with a jacket material of the same appearance and quality as the adjoining pipe insulation jacket, shall overlap the adjoining pipe jacket 1-1/2 inches, and shall be sealed as required for the pipe jacket. The jacket material used to cover inserts in flexible elastomeric cellular insulation shall conform to ASTM C 1136, Type 1, and is allowed to be of a different material than the adjoining insulation material.

3.2.1.6 Pipe Insulation Material and Thickness

TABLE 1
Insulation Material For Piping (°F)

Service	Material	Spec.	Type	Class	Vapor Retarder Req'd
Chilled Water (Supply & Return, Dual Temperature Piping, 40°F nominal)	Cellular Glass	ASTM C 552	II	2	No
	Flex Elast Cell'r	ASTM C 534	I		No
	Faced Phenol Foam	ASTM C 1126	III		Yes
	Polyisocyanurate	ASTM C 591	I		Yes

TABLE 2
Piping Insulation Thickness (inch and °F)

Service	Material	Tube And Pipe Size (Inches)				
		<1	1- <1.5	1.5- <4	4- <8	>or = to 8
Chilled Water (Supply & Return, & Dual Temperature Piping) (40°F Nominal)	Cellular Glass	1.5	2	2	2.5	3
	Faced Phenolic Foam	1	1	1	1.5	1.5
Chilled Water (Supply & Return, & Dual Temperature Piping) (40°F Nominal)	Cellular Glass	1.5	1.5	1.5	1.5	2
	Flex Elas Cell'r	1	1	1	N/A	N/A
	Faced Phenol Foam	1	1	1	1	1.5

3.2.2 Aboveground Cold Pipelines

The following cold pipelines for minus 30 to plus 60 degrees F, shall be insulated per Table 2 except those piping listed in subparagraph Pipe Insulation in PART 3 as to be omitted. This includes but is not limited to the following:

- a. Chilled water.
- b. Dual temperature water, i.e. HVAC hot/chilled water.

3.2.2.1 Insulation Material and Thickness

Insulation thickness for cold pipelines shall be determined using Table 2.

3.2.2.2 Jacket for Mineral Fiber, Cellular Glass, Phenolic Foam, and Polyisocyanurate Foam Insulated Pipe

Insulation shall be covered with a factory applied vapor retarder jacket or field applied seal welded PVC jacket. Insulation inside the building, to be protected with an aluminum jacket, shall have the insulation and vapor retarder jacket installed as specified herein. The aluminum jacket shall be installed as specified for piping exposed to weather, except sealing of the laps of the aluminum jacket is not required. In high abuse areas such as janitor closets and traffic areas in equipment rooms, kitchens, and mechanical rooms, aluminum jackets shall be provided for pipe insulation to the 6 ft level.

3.2.2.3 Installing Insulation for Straight Runs Hot and Cold Pipe

- a. Insulation shall be applied to the pipe with joints tightly butted. All butted joints and ends shall be sealed with joint sealant and sealed with a vapor retarder coating or PVDC adhesive tape.
- b. Longitudinal laps of the jacket material shall overlap not less than 1-1/2 inches. Butt strips 3 inches wide shall be provided for circumferential joints.
- c. Laps and butt strips shall be secured with adhesive and stapled on 4 inch centers if not factory self-sealing. If staples are used, they shall be sealed per item "e." below. Note that staples are not required with cellular glass systems.
- d. Factory self-sealing lap systems may be used when the ambient temperature is between 40 and 120 degrees F during installation. The lap system shall be installed in accordance with manufacturer's recommendations. Stapler shall be used only if specifically recommended by the manufacturer. Where gaps occur, the section shall be replaced or the gap repaired by applying adhesive under the lap and then stapling.

e. All Staples, including those used to repair factory self-seal lap systems, shall be coated with a vapor retarder coating or PVDC adhesive tape. All seams, except those on factory self-seal systems shall be coated with vapor retarder coating or PVDC adhesive tape.

f. Breaks and punctures in the jacket material shall be patched by wrapping a strip of jacket material around the pipe and securing it with adhesive, stapling, and coating with vapor retarder coating or PVDC adhesive tape. The patch shall extend not less than 1-1/2 inches past the break.

g. At penetrations such as thermometers, the voids in the insulation shall be filled and sealed with vapor retarder coating or PVDC adhesive tape.

h. Installation of flexible elastomeric cellular pipe insulation shall be by slitting the tubular sections and applying them onto the piping or tubing. Alternately, whenever possible slide un-slit sections over the open ends of piping or tubing. All seams and butt joints shall be secured and sealed with adhesive. When using self seal products only the butt joints shall be secured with adhesive. Insulation shall be pushed on the pipe, never pulled. Stretching of insulation may result in open seams and joints. All edges shall be clean cut. Rough or jagged edges of the insulation shall not be permitted. Proper tools such as sharp knives shall be used. Grade 1, Type II sheet insulation when used on pipe larger than 6 inches shall not be stretched around the pipe. On pipes larger than 12 inches, adhere sheet insulation directly to the pipe on the lower 1/3 of the pipe.

3.2.2.4 Insulation for Fittings and Accessories

a. Pipe insulation shall be tightly butted to the insulation of the fittings and accessories. The butted joints and ends shall be sealed with joint sealant and sealed with a vapor retarder coating or PVDC adhesive tape.

b. Precut or preformed insulation shall be placed around all fittings and accessories and shall conform to MICA plates except as modified herein: 5 for anchors; 10, 11, and 13 for fittings; 14 for valves; and 17 for flanges and unions. Insulation shall be the same insulation as the pipe insulation, including same density, thickness, and thermal conductivity. Where precut/preformed is unavailable, rigid preformed pipe insulation sections may be segmented into the shape required. Insulation of the same thickness and conductivity as the adjoining pipe insulation shall be used. If nesting size insulation is used, the insulation shall be overlapped 2 inches or one pipe diameter. Elbows insulated using segments shall conform to MICA Tables 12.20 "Mitered Insulation Elbow".

c. Upon completion of insulation installation on flanges, unions, valves, anchors, fittings and accessories, terminations, seams, joints and insulation not protected by factory vapor retarder jackets or PVC fitting covers shall be protected with PVDC adhesive tape or two coats of vapor retarder coating with a minimum total thickness of 1/16 inch, applied with glass tape embedded between coats. Tape seams shall overlap 1 inch. The coating shall extend out onto the adjoining pipe insulation 2 inches. Fabricated insulation with a factory vapor retarder jacket shall be protected with PVDC adhesive tape or two coats of

vapor retarder coating with a minimum thickness of 1/16 inch and with a 2 inch wide glass tape embedded between coats. Where fitting insulation butts to pipe insulation, the joints shall be sealed with a vapor retarder coating and a 4 inch wide ASJ tape which matches the jacket of the pipe insulation.

- d. Anchors attached directly to the pipe shall be insulated for a sufficient distance to prevent condensation but not less than 6 inches from the insulation surface.
- e. Insulation shall be marked showing the location of unions, strainers, and check valves.

SECTION 15181

CHILLED, CHILLED-HOT, AND CONDENSER WATER PIPING SYSTEMS

10/04

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

AMERICAN WELDING SOCIETY (AWS)

AWS A5.8(1992) Filler Metals for Brazing and Braze Welding

AWS BRH(2002) Brazing Handbook

AWS D1.1/D1.1M(2004) Structural Welding Code - Steel

AWS Z49.1(1999) Safety in Welding, Cutting and Allied Processes

ASME INTERNATIONAL (ASME)

ASME B1.20.1(1983; R 2001) Pipe Threads, General Purpose, Inch

ASME B16.1(1998) Cast Iron Pipe Flanges and Flanged Fittings

ASME B16.11(2002) Forged Fittings, Socket-Welding and Threaded

ASME B16.18(2002) Cast Copper Alloy Solder Joint Pressure Fittings

ASME B16.21(1992) Nonmetallic Flat Gaskets for Pipe Flanges

ASME B16.22(2002) Wrought Copper and Copper Alloy Solder Joint Pressure Fittings

ASME B16.26(1988) Cast Copper Alloy Fittings for Flared Copper Tubes

ASME B16.3(1998) Malleable Iron Threaded Fittings

ASME B16.39(1998) Malleable Iron Threaded Pipe Unions

ASME B16.9(2003) Factory-Made Wrought Steel Buttwelding Fittings

ASME B31.9(1996) Building Services Piping

ASME B40.1(1991) Gauges - Pressure Indicating Dial Type - Elastic Element

ASTM INTERNATIONAL (ASTM)

ASTM A 183(2003) Carbon Steel Track Bolts and Nuts

ASTM A 53/A 53M(2004a) Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless

ASTM A 733(2003) Welded and Seamless Carbon Steel and Austenitic Stainless Steel Pipe Nipples

ASTM B 42(2002e1) Seamless Copper Pipe, Standard Sizes

ASTM B 117(2002) Operating Salt Spray (Fog) Apparatus

ASTM B 32(2004) Solder Metal

ASTM B 62(2002) Composition Bronze or Ounce Metal Castings

ASTM B 75(2002) Seamless Copper Tube

ASTM B 75M(1999) Seamless Copper Tube (Metric)

ASTM B 813(2000e1) Liquid and Paste Fluxes for Soldering of Copper and Copper Alloy Tube

ASTM B 88(2003) Seamless Copper Water Tube

ASTM B 88M(2003) Seamless Copper Water Tube (Metric)

ASTM D 1384(2004) Corrosion Test for Engine Coolants in Glassware

ASTM D 3308(2001) PTFE Resin Skived Tape

ASTM E 84(2004) Surface Burning Characteristics of Building Materials

MANUFACTURERS STANDARDIZATION SOCIETY OF THE VALVE AND FITTINGS INDUSTRY (MSS)

MSS SP-110(1996) Ball Valves Threaded, Socket-Welding, Solder Joint, Grooved and Flared Ends

MSS SP-25(1998) Standard Marking System for Valves, Fittings, Flanges and Unions

MSS SP-58(2002) Pipe Hangers and Supports - Materials, Design and Manufacture

MSS SP-69(2002) Pipe Hangers and Supports - Selection and Application

MSS SP-72(1999) Ball Valves with Flanged or Butt-Welding Ends for General Service

NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION (NEMA)

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

NFPA 90A(2002) Installation of Air Conditioning and Ventilating Systems

1.2 SYSTEM DESCRIPTION

Provide the water systems having the minimum service (design) temperature-pressure rating indicated. Provision of the piping systems, including materials, installation, workmanship, fabrication, assembly, erection, examination, inspection, and testing shall be in accordance with the required and advisory provisions of ASME B31.9 except as modified or supplemented by this specification section or design drawings. This specification section covers the water systems piping located in the Ford House Office Building.

1.3 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. Submit the following submitted in accordance with Section 01000:

SD-03 Product Data

Pipe (G)

Fittings (G)

Ball Valves (G)

SD-06 Test Reports (G)

Piping welds NDE report (G)

Pressure tests reports (G)

Report shall be provided in bound 8 1/2 x 11 inch booklets. In the reports, document all phases of the tests performed. Include initial test summaries, all repairs/adjustments made, and the final test results.

SD-07 Certificates

Employer's Record Documents (For Welding) (G)

Welding Procedures and Qualifications (G)

SD-08 Manufacturer's Instructions (G)

SD-10 Operation and Maintenance Data (G)

Requirements for data packages are specified Section 01000 OPERATION AND MAINTENANCE DATA, except as supplemented and modified by this specification section.

Submit spare parts data for each different item of equipment specified, with operation and maintenance data packages. Include a complete list of parts and supplies, with current unit prices and source of supply, a recommended spare parts list for 1 year of operation, and a list of the parts recommended by the manufacturer to be replaced on a routine basis.

Submit a list of qualified permanent service organizations with operation and maintenance data packages. Include service organization addresses and service area or expertise. The service organizations shall be reasonably convenient to the equipment installation and be able to render satisfactory service to the equipment on a regular and emergency basis during the warranty period of the contract.

1.4 MODIFICATIONS TO REFERENCES

In each of the publications referred to herein, consider the advisory provisions to be mandatory, as though the word, "shall" had been substituted for "should" wherever it appears. Interpret references in these publications to the "authority having jurisdiction", or words of similar meaning, to mean the Contracting Officer.

1.4.1 Definitions

For the International Code Council (ICC) Codes referenced in the contract documents, advisory provisions shall be considered mandatory, the word "should" shall be interpreted as "shall." Reference to the "code official" shall be interpreted to mean the "Contracting Officer." For government owned property, references to the "owner" shall be interpreted to mean the "Contracting Officer." For leased facilities, references to the "owner" shall be interpreted to mean the "lessor." References to the "permit holder" shall be interpreted to mean the "Contractor."

1.4.2 Administrative Interpretations

For ICC Codes referenced in the contract documents, the provisions of Chapter 1, "Administrator," do not apply. These administrative requirements are covered by the

applicable Federal Acquisition Regulations (FAR) included in this contract and by the authority granted to the Contracting Officer's Technical Representative (COTR) to administer the construction of this project. References in the ICC Codes to sections of Chapter 1, shall be applied appropriately by the Contracting Officer as authorized by his administrative cognizance and the FAR.

1.5 SAFETY REQUIREMENTS

Exposed moving parts, parts that produce high operating temperature, parts which may be electrically energized, and parts that may be a hazard to operating personnel shall be insulated, fully enclosed, guarded, or fitted with other types of safety devices. Safety devices shall be installed so that proper operation of equipment is not impaired.

1.6 DELIVERY, STORAGE, AND HANDLING

Protect stored items from the weather, humidity and temperature variations, dirt and dust, or other contaminants. Proper protection and care of all material both before and during installation shall be the Contractor's responsibility. Any materials found to be damaged shall be replaced at the Contractor's expense. During installation, cap piping and similar openings to keep out dirt and other foreign matter. Any porous materials found to be contaminated with mold or mildew will be replaced at the Contractor's expense. Non-porous materials found to be contaminated with mold or mildew will be disinfected and cleaned prior to installation.

1.7 PROJECT/SITE CONDITIONS

1.7.1 Verification of Dimensions

The Contractor shall become familiar with all details of the work, verify all dimensions in the field, and advise the Contracting Officer of any discrepancy before performing any work.

1.7.2 Accessibility

Install all work so that parts requiring periodic inspection, operation, maintenance, and repair are readily accessible. Install concealed valves, expansion joints, controls, dampers, and equipment requiring access, in locations freely accessible through access doors.

PART 2 PRODUCTS

2.1 STANDARD COMMERCIAL PRODUCTS

Materials and equipment shall be standard products of a manufacturer regularly engaged in the manufacturing of such products, which are of a similar material, design and

workmanship. The standard products shall have been in satisfactory commercial or industrial use for 2 years prior to bid opening.

The 2 year use shall include applications of equipment and materials under similar circumstances and of similar size. The 2 years experience shall be satisfactorily completed by a product which has been sold or is offered for sale on the commercial market through advertisements, manufacturer's catalogs, or brochures.

Products having less than a 2 year field service record shall be acceptable if a certified record of satisfactory field operation, for not less than 6000 hours exclusive of the manufacturer's factory tests, can be shown. System components shall be environmentally suitable for the indicated locations.

The equipment items shall be supported by service organizations. These service organizations shall be reasonably convenient to the equipment installation and able to render satisfactory service to the equipment on a regular and emergency basis during the warranty period of the contract.

2.2 STEEL PIPING

Water piping shall be steel pipe or copper tubing. Provide steel piping with a ANSI/ASME Class 150 service rating

2.2.1 Pipe

Steel pipe, conform to ASTM A 53/A 53M, Schedule 40, Type E or S, Grades A or B. Do not use Type F pipe.

2.2.2 Fittings and End Connections (Joints)

Piping and fittings 1 inch and smaller shall have threaded connections. Piping and fittings larger than 1 inch and smaller than 3 inches shall have either threaded, grooved, or welded connections. Piping and fittings 3 inches and larger shall have grooved, welded, or flanged connections. The manufacturer of each fitting shall be permanently identified on the body of the fitting in accordance with MSS SP-25.

2.2.2.1 Threaded Connections

Use threaded valves and pipe connections conforming to ASME B1.20.1. Use threaded fitting conforming to ASME B16.3. Use threaded unions conforming to ASME B16.39. Use threaded pipe nipples conforming to ASTM A 733.

2.2.2.2 Flanged Connections

Flanges shall conform to ASME B16.1, Class 150. Gaskets shall be nonasbestos compressed material in accordance with ASME B16.21, 1.59 mm 1/16 inch thickness, full

face or self-centering flat ring type. These gaskets shall contain aramid fibers bonded with styrene butadiene rubber (SBR) or nitrile butadiene rubber (NBR). Bolts, nuts, and bolt patterns shall conform to ASME B16.1.

2.2.2.3 Welded Connections

Welded valves and pipe connections (both butt-welds and socket-welds types) shall conform to ASME B31.9. Butt-welded fittings shall conform to ASME B16.9. Socket-welded fittings shall conform to ASME B16.11. Welded fittings shall be identified with the appropriate grade and marking symbol.

2.3 COPPER TUBING

Provide copper tubing and fittings with a ANSI/ASME Class 150 service rating.

2.3.1 Tube

Use copper tube conforming to ASTM B 88M ASTM B 88, Type L or M for aboveground tubing, and Type K for buried tubing.

2.3.2 Fittings and End Connections (Solder and Flared Joints)

Wrought copper and bronze solder joint pressure fittings, including unions and flanges, shall conform to ASME B16.22 and ASTM B 75M ASTM B 75. Provide adapters as required. Cast copper alloy solder-joint pressure fittings, including unions and flanges, shall conform to ASME B16.18. Cast copper alloy fittings for flared copper tube shall conform to ASME B16.26 and ASTM B 62. ASTM B 42 copper pipe nipples with threaded end connections shall conform to ASTM B 42.

Copper tubing of sizes larger than 4 inches shall have brazed joints. Brass or bronze adapters for brazed tubing may be used for connecting tubing to flanges and to threaded ends of valves and equipment.

Extracted brazed tee joints may be used if produced with an acceptable tool and installed in accordance with tool manufacturer's written procedures.

2.3.4 Solder

Provide solder in conformance with ASTM B 32, grade Sb5, tin-antimony alloy. Solder flux shall be liquid or paste form, non-corrosive and conform to ASTM B 813.

2.3.5 Brazing Filler Metal

Filler metal shall conform to AWS A5.8, Type BAg-5 with AWS Type 3 flux, except Type BCuP-5 or BCuP-6 may be used for brazing copper-to-copper joints.

2.4 VALVES

Provide valves with a ANSI/ASME Class 150 service rating.

2.4.6 Ball Valve

Full port design. Ball valves 1/2 inch and larger shall conform to MSS SP-72 or MSS SP-110 and shall be cast iron or bronze with threaded, soldered, or flanged ends.

2.4.18 Air Venting Valves

Automatic type air venting shall be the ball-float type with brass/bronze or brass bodies, 300 series corrosion-resistant steel float, linkage and removable seat. Air venting valves on water coils shall have not less than 1/8 inch threaded end connections. Air venting valves on water mains shall have not less than 3/4 inch threaded end connections. Air venting valves on all other applications shall have not less than 1/2 inch threaded end connections.

2.5 PIPING ACCESSORIES

2.5.4 Pressure and Vacuum Gauges

Gauges, ASME B40.1 with throttling type needle valve or a pulsation dampener and shut-off valve. Provide gauges with 4.5 inch dial, brass or aluminum case, bronze tube, and siphon. Gauge shall have a minimum of with a range from 0 psig to approximately 1.5 times the maximum system working pressure. Each gauge range shall be selected so that at normal operating pressure, the needle is within the middle-third of the range.

2.5.5 Temperature Gauges

Temperature gauges, shall be the industrial duty type and be provided for the required temperature range. Provide gauges with fixed thread connection, dial face gasketed within the case; and an accuracy within 2 percent of scale range. Gauges shall have Celsius scale in 1 degree Fahrenheit scale in 2 degree graduations scale (black numbers) on a white face. The pointer shall be adjustable. Rigid stem type temperature gauges shall be provided in thermal wells located within 5 feet of the finished floor. Universal adjustable angle type or remote element type temperature gauges shall be provided in thermal wells located 5 to 7 feet above the finished floor or in locations indicated. Remote element type temperature gauges shall be provided in thermal wells located 7 feet above the finished floor or in locations indicated.

2.5.5.1 Stem Cased-Glass

Stem cased-glass case shall be polished stainless steel or cast aluminum, 9 inches long, with clear acrylic lens, and non-mercury filled glass tube with indicating-fluid column.

2.5.5.2 Bimetallic Dial

Bimetallic dial type case shall be not less than, 3-1/2 inches, stainless steel, and shall be hermetically sealed with clear acrylic lens. Bimetallic element shall be silicone dampened and unit fitted with external calibrator adjustment.

2.5.5.3 Liquid-, Solid-, and Vapor-Filled Dial

Liquid-, solid-, and vapor-filled dial type cases shall be not less than 3-1/2 inches, stainless steel or cast aluminum with clear acrylic lens. Fill shall be non-mercury, suitable for encountered cross-ambients, and connecting capillary tubing shall be double-braided bronze.

2.5.5.4 Thermal Well

Thermal well shall be identical size, 1/2 or 3/4 inch NPT connection, brass or stainless steel. Where test wells are indicated, provide captive plug-fitted type 1/2 inch NPT connection suitable for use with either engraved stem or standard separable socket thermometer or thermostat. Mercury shall not be used in thermometers. Extended neck thermal wells shall be of sufficient length to clear insulation thickness by 1 inch.

2.5.6 Pipe Hangers, Inserts, and Supports

Pipe hangers, inserts, guides, and supports: to MSS SP-58 and MSS SP-69.

2.5.7 Escutcheons

Provide one piece or split hinge metal plates for piping entering floors, walls, and ceilings in exposed spaces. Secure plates in place by internal spring tension or set screws. Provide polished stainless steel plates or chromium-plated finish on copper alloy plates in finished spaces. Provide paint finish on metal plates in unfinished spaces.

2.11 PAINTING OF NEW EQUIPMENT

New equipment painting shall be factory applied or shop applied, and shall be as specified herein, and provided under each individual section.

2.11.1 Factory Painting Systems

Manufacturer's standard factory painting systems may be provided. The factory painting system applied will withstand 125 hours in a salt-spray fog test, except that equipment located outdoors shall withstand 500 hours in a salt-spray fog test.

Salt-spray fog test shall be in accordance with ASTM B 117, and for that test, the acceptance criteria shall be as follows: immediately after completion of the test, the paint shall show no signs of blistering, wrinkling, or cracking, and no loss of adhesion; and the

specimen shall show no signs of rust creepage beyond 0.125 inch on either side of the scratch mark. The film thickness of the factory painting system applied on the equipment shall not be less than the film thickness used on the test specimen.

If manufacturer's standard factory painting system is being proposed for use on surfaces subject to temperatures above 120 degrees F, the factory painting system shall be designed for the temperature service.

2.11.2 Shop Painting Systems for Metal Surfaces

Clean, retreat, prime and paint metal surfaces; except aluminum surfaces need not be painted. Apply coatings to clean dry surfaces. Clean the surfaces to remove dust, dirt, rust, oil and grease by wire brushing and solvent degreasing prior to application of paint, except metal surfaces subject to temperatures in excess of 120 degrees F shall be cleaned to bare metal.

Where hot-dip galvanized steel has been cut, resulting surfaces with no galvanizing shall be coated with a zinc-rich coating conforming to ASTM D 520, Type I.

Where more than one coat of paint is specified, apply the second coat after the preceding coat is thoroughly dry. Lightly sand damaged painting and retouch before applying the succeeding coat. Color of finish coat shall be aluminum or light gray.

a. Temperatures Less Than 120 Degrees F: Immediately after cleaning, the metal surfaces subject to temperatures less than 120 degrees F shall receive one coat of pretreatment primer applied to a minimum dry film thickness of 0.3 mil, one coat of primer applied to a minimum dry film thickness of one mil; and two coats of enamel applied to a minimum dry film thickness of one mil per coat.

2.13 NAMEPLATES

Major equipment including pumps, pump motors, expansion tanks, and air separator tanks shall have the manufacturer's name, type or style, model or serial number on a plate secured to the item of equipment. The nameplate of the distributing agent will not be acceptable. Plates shall be durable and legible throughout equipment life.

2.14 RELATED COMPONENTS/SERVICES

2.14.3 Field Applied Insulation

Requirements for field applied insulation is specified in Section 15080 THERMAL INSULATION FOR MECHANICAL SYSTEMS.

2.14.4 Field Applied Insulation

Requirements for field installed insulation is specified in Section 15080A THERMAL INSULATION FOR MECHANICAL SYSTEMS.

PART 3 EXECUTION

3.1 INSTALLATION

Cut pipe accurately to measurements established at the jobsite, and work into place without springing or forcing, completely clearing all windows, doors, and other openings. Cutting or other weakening of the building structure to facilitate piping installation is not permitted without written approval. Cut pipe or tubing square, remove burrs by reaming, and fashion to permit free expansion and contraction without causing damage to the building structure, pipe, joints, or hangers.

Notify the Contracting Officer in writing at least 5 calendar days prior to the date the connections are required. Obtain approval before interrupting service. Furnish materials required to make connections into existing systems and perform excavating, backfilling, compacting, and other incidental labor as required. Furnish labor and tools for making actual connections to existing systems.

3.1.1 Welding

Provide welding work specified this section for piping systems in conformance with ASME B31.9, as modified and supplemented by this specification section and the accompanying drawings. The welding work includes: qualification of welding procedures, welders, welding operators, brazers, brazing operators, and nondestructive examination personnel; maintenance of welding records, and examination methods for welds.

3.1.1.1 Employer's Record Documents (For Welding)

Submit for review and approval the following documentation. This documentation and the subject qualifications shall be in compliance with ASME B31.9.

- a. List of qualified welding procedures that is proposed to be used to provide the work specified in this specification section.
- b. List of qualified welders, brazers, welding operators, and brazing operators that are proposed to be used to provide the work specified in this specification section.
- c. List of qualified weld examination personnel that are proposed to be used to provide the work specified in this specification section.

3.1.1.2 Welding Procedures and Qualifications

- a. Specifications and Test Results: Submit copies of the welding procedures specifications and procedure qualification test results for each type of welding required. Approval of any procedure does not relieve the Contractor of the responsibility for producing acceptable welds. Submit this information on the forms printed in ASME BPVC SEC IX or their equivalent.
- b. Certification: Before assigning welders or welding operators to the work, submit a list of qualified welders, together with data and certification that each individual is performance qualified as specified. Do not start welding work prior to submitting welder, and welding operator qualifications. The certification shall state the type of welding and positions for which each is qualified, the code and procedure under which each is qualified, date qualified, and the firm and individual certifying the qualification tests.

3.1.1.3 Examination of Piping Welds

Conduct non-destructive examinations (NDE) on piping welds and brazing and verify the work meets the acceptance criteria specified in ASME B31.9. NDE on piping welds covered by ASME B31.9 is visual inspection only. Submit a piping welds NDE report meeting the requirements specified in ASME B31.9.

3.1.1.4 Welding Safety

Welding and cutting safety requirements shall be in accordance with AWS Z49.1.

3.1.2 Directional Changes

Make changes in direction with fittings, except that bending of pipe 4 inches and smaller is permitted, provided a pipe bender is used and wide weep bends are formed. Mitering or notching pipe or other similar construction to form elbows or tees is not permitted. The centerline radius of bends shall not be less than 6 diameters of the pipe. Bent pipe showing kinks, wrinkles, flattening, or other malformations is not acceptable.

3.1.3 Functional Requirements

Pitch horizontal supply mains down in the direction of flow as indicated. The grade shall not be less than 1 inch in 40 feet. Reducing fittings shall be used for changes in pipe sizes. Cap or plug open ends of pipelines and equipment during installation to keep dirt or other foreign materials out of the system.

Pipe not otherwise specified shall be uncoated. Connections to appliances shall be made with malleable iron unions for steel pipe 2-1/2 inches or less in diameter, and with flanges for pipe 3 inches and above in diameter. Connections between ferrous and copper piping shall be electrically isolated from each other with dielectric waterways or flanges.

Piping located in air plenums shall conform to NFPA 90A requirements. Pipe and fittings installed in inaccessible conduits or trenches under concrete floor slabs shall be welded. Equipment and piping arrangements shall fit into space allotted and allow adequate acceptable clearances for installation, replacement, entry, servicing, and maintenance. Electric isolation fittings shall be provided between dissimilar metals.

3.1.4 Fittings and End Connections

3.1.4.1 Threaded Connections

Threaded connections shall be made with tapered threads and made tight with PTFE tape complying with ASTM D 3308 or equivalent thread-joint compound applied to the male threads only. Not more than three threads shall show after the joint is made.

3.1.4.2 Brazed Connections

Brazing, AWS BRH, except as modified herein. During brazing, the pipe and fittings shall be filled with a pressure regulated inert gas, such as nitrogen, to prevent the formation of scale. Before brazing copper joints, both the outside of the tube and the inside of the fitting shall be cleaned with a wire fitting brush until the entire joint surface is bright and clean. Do not use brazing flux. Surplus brazing material shall be removed at all joints. Steel tubing joints shall be made in accordance with the manufacturer's recommendations. Piping shall be supported prior to brazing and not be sprung or forced.

3.1.4.3 Welded Connections

Branch connections shall be made with welding tees or forged welding branch outlets. Pipe shall be thoroughly cleaned of all scale and foreign matter before the piping is assembled. During welding, the pipe and fittings shall be filled with an inert gas, such as nitrogen, to prevent the formation of scale. Beveling, alignment, heat treatment, and inspection of weld shall conform to ASME B31.9. Weld defects shall be removed and rewelded at no additional cost to the Government. Electrodes shall be stored and dried in accordance with AWS D1.1/D1.1M or as recommended by the manufacturer. Electrodes that have been wetted or that have lost any of their coating shall not be used.

3.1.4.6 Flanges and Unions

Except where copper tubing is used, union or flanged joints shall be provided in each line immediately preceding the connection to each piece of equipment or material requiring maintenance such as coils, pumps, control valves, and other similar items. Flanged joints shall be assembled square end tight with matched flanges, gaskets, and bolts. Gaskets shall be suitable for the intended application.

3.1.5 Valves

Isolation gate or ball valves shall be installed on each side of each piece of equipment, at the midpoint of all looped mains, and at any other points indicated or required for draining, isolating, or sectionalizing purpose. Isolation valves may be omitted where balancing cocks are installed to provide both balancing and isolation functions. Each valve except check valves shall be identified. Valves in horizontal lines shall be installed with stems horizontal or above.

3.1.6 Air Vents

Air vents shall be provided at all high points, on all water coils, and where indicated to ensure adequate venting of the piping system.

3.1.7 Drains

Drains shall be provided at all low points and where indicated to ensure complete drainage of the piping. Drains shall be accessible, and shall consist of nipples and caps or plugged tees unless otherwise indicated.

3.1.9 Temperature Gauges

Temperature gauges shall be located on coolant supply and return piping at each heat exchanger, on condenser water piping entering and leaving a condenser, at each automatic temperature control device without an integral thermometer, and where indicated or required for proper operation of equipment. Thermal wells for insertion thermometers and thermostats shall extend beyond thermal insulation surface not less than 1 inch.

3.1.10 Pipe Hangers, Inserts, and Supports

Pipe hangers, inserts, and supports shall conform to MSS SP-58 and MSS SP-69, except as supplemented and modified in this specification section. Pipe hanger types 5, 12, and 26 shall not be used. Hangers used to support piping 2 inches and larger shall be fabricated to permit adequate adjustment after erection while still supporting the load. Piping subjected to vertical movement, when operating temperatures exceed ambient temperatures, shall be supported by variable spring hangers and supports or by constant support hangers.

3.1.10.1 Hangers

Type 3 shall not be used on insulated piping. Type 24 may be used only on trapeze hanger systems or on fabricated frames.

3.1.10.2 Inserts

Type 18 inserts shall be secured to concrete forms before concrete is placed. Continuous inserts which allow more adjustments may be used if they otherwise meet the requirements for Type 18 inserts.

3.1.10.3 C-Clamps

Type 19 and 23 C-clamps shall be torqued per MSS SP-69 and have both locknuts and retaining devices, furnished by the manufacturer. Field-fabricated C-clamp bodies or retaining devices are not acceptable.

3.1.10.4 Angle Attachments

Type 20 attachments used on angles and channels shall be furnished with an added malleable-iron heel plate or adapter.

3.1.10.5 Saddles and Shields

Where Type 39 saddle or Type 40 shield are permitted for a particular pipe attachment application, the Type 39 saddle, connected to the pipe, shall be used on all pipe 4 inches and larger when the temperature of the medium is 60 degrees F or higher. Type 40 shields shall be used on all piping less than 4 inches and all piping 4 inches and larger carrying medium less than 60 degrees F. A high density insulation insert of cellular glass shall be used under the Type 40 shield for piping 2 inches and larger.

3.1.10.6 Horizontal Pipe Supports

Horizontal pipe supports shall be spaced as specified in MSS SP-69 and a support shall be installed not over 1 foot from the pipe fitting joint at each change in direction of the piping. Pipe supports shall be spaced not over 5 feet apart at valves. Pipe hanger loads suspended from steel joist with hanger loads between panel points in excess of 50 pounds shall have the excess hanger loads suspended from panel points.

3.1.10.7 Vertical Pipe Supports

Vertical pipe shall be supported at each floor, except at slab-on-grade, and at intervals of not more than 15 feet, not more than 8 feet from end of risers, and at vent terminations.

3.1.10.12 Structural Attachments

Attachment to building structure concrete and masonry shall be by cast-in concrete inserts, built-in anchors, or masonry anchor devices. Inserts and anchors shall be applied with a safety factor not less than 5. Supports shall not be attached to metal decking. Supports shall not be attached to the underside of concrete filled floors or concrete roof decks unless approved by the Contracting Officer. Masonry anchors for overhead applications shall be constructed of ferrous materials only. Structural steel brackets

required to support piping, headers, and equipment, but not shown, shall be provided under this section.

3.1.12 Pipe Anchors

Anchors shall be provided where indicated. Unless indicated otherwise, anchors shall comply with the requirements specified. Anchors shall consist of heavy steel collars with lugs and bolts for clamping and attaching anchor braces, unless otherwise indicated. Anchor braces shall be installed in the most effective manner to secure the desired results using turnbuckles where required.

Supports, anchors, or stays shall not be attached where they will injure the structure or adjacent construction during installation or by the weight of expansion of the pipeline. Where pipe and conduit penetrations of vapor barrier sealed surfaces occur, these items shall be anchored immediately adjacent to each penetrated surface, to provide essentially zero movement within penetration seal.

3.1.13 Building Surface Penetrations

Sleeves shall not be installed in structural members except where indicated or approved. Except as indicated otherwise piping sleeves shall comply with requirements specified. Sleeves in nonload bearing surfaces shall be galvanized sheet metal, conforming to ASTM A 653/A 653M, Coating Class G-90, 20 gauge. Sleeves in load bearing surfaces shall be uncoated carbon steel pipe, conforming to ASTM A 53/A 53M, Standard weight. Sealants shall be applied to moisture and oil-free surfaces and elastomers to not less than 1/2 inch depth. Sleeves shall not be installed in structural members.

3.1.13.2 General Service Areas

Each sleeve shall extend through its respective wall, floor, or roof, and shall be cut flush with each surface. Pipes passing through concrete or masonry wall or concrete floors or roofs shall be provided with pipe sleeves fitted into place at the time of construction. Sleeves shall be of such size as to provide a minimum of 1/4 inch all-around clearance between bare pipe and sleeves or between jacketed-insulation and sleeves. Except in pipe chases or interior walls, the annular space between pipe and sleeve or between jacket over-insulation and sleeve shall be sealed.

3.3 CLEANING AND ADJUSTING

Pipes shall be cleaned free of scale and thoroughly flushed of all foreign matter. A temporary bypass shall be provided for all water coils to prevent flushing water from passing through coils. Strainers and valves shall be thoroughly cleaned. Prior to testing and balancing, air shall be removed from all water systems by operating the air vents. Temporary measures, such as piping the overflow from vents to a collecting vessel shall be taken to avoid water damage during the venting process. Air vents shall be plugged or

capped after the system has been vented. Control valves and other miscellaneous equipment requiring adjustment shall be adjusted to setting indicated or directed.

3.4 FIELD TESTS

Field tests shall be conducted in the presence of the QC Manager or his designated representative to verify systems compliance with specifications. Any material, equipment, instruments, and personnel required for the test shall be provided by the Contractor.

3.4.1 Equipment and Component Isolation

Prior to testing, equipment and components that cannot withstand the tests shall be properly isolated.

3.4.2 Pressure Tests

Each piping system shall be hydrostatically tested at a pressure not less than 188 psig for period of time sufficient to inspect every joint in the system and in no case less than 2 hours. Test pressure shall be monitored by a currently calibrated test pressure gauge. Leaks shall be repaired and piping retested until test requirements are met. No leakage or reduction in gage pressure shall be allowed.

Leaks shall be repaired by re-welding or replacing pipe or fittings. Caulking of joints will not be permitted. Concealed and insulated piping shall be tested in place before concealing.

Submit for approval pressure tests reports covering the above specified piping pressure tests; describe the systems tested, test results, defects found and repaired, and signature of the pressure tests' director. Obtain approval from the QC Manager before concealing piping or applying insulation to tested and accepted piping.

3.4.4 Related Field Inspections and Testing

3.4.4.1 Piping Welds

Examination of Piping Welds is specified in the paragraph above entitled "Examination of Piping Welds".

SECTION 15216N

WELDING PRESSURE PIPING

09/99

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

AMERICAN SOCIETY FOR NONDESTRUCTIVE TESTING (ASNT)

ASNT RP SNT-TC-1A(2001) Recommended Practice

AMERICAN WELDING SOCIETY (AWS)

AWS A2.4(1998) Standard Symbols for Welding, Brazing and Nondestructive Examination

AWS A3.0(2001) Standard Welding Terms and Definitions

AWS B2.1(2000) Welding Procedure and Performance Qualification

AWS D1.1/D1.1M(2004) Structural Welding Code - Steel

AWS QC1(1996) AWS Certification of Welding Inspectors

AWS Z49.1(1999) Safety in Welding, Cutting and Allied Processes

ASME INTERNATIONAL (ASME)

ASME B31.1(2004) Power Piping

ASME B31.3(2002) Process Piping

ASME B31.4(2002) Piping Transportation Systems for Liquid Hydrocarbons and Other Liquid

ASME B31.5(2001) Refrigeration Piping and Heat Transfer Components

ASME B31.9(1996) Building Services Piping

ASME BPVC SEC I(2001) Boiler and Pressure Vessel Code; Section I, Power Boilers

ASME BPVC SEC II-C(2001) Boiler and Pressure Vessel Code; Section II, Materials, Part C - Specifications for Welding Rods, Electrodes and Filler Metals

ASME BPVC SEC IX(2001) Boiler and Pressure Vessel Code; Section IX, Welding and Brazing Qualifications

ASME BPVC SEC V(2001) Boiler and Pressure Vessel Code; Section V, Nondestructive Examination

U.S. NATIONAL ARCHIVES AND RECORDS ADMINISTRATION (NARA)

29 CFR 1910 Occupational Safety and Health Standards

29 CFR 1926 Safety and Health Regulations for Construction

1.2 RELATED REQUIREMENTS

Section 15050N BASIC MECHANICAL MATERIALS AND METHODS applies to this section with the additions and modifications specified herein.

1.3 DEFINITIONS

AWS A3.0 and applicable ANSI piping documents.

1.4 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. The following shall be submitted in accordance with Section 01000 SUBMITTAL PROCEDURES:

SD-07 Certificates

Welding procedures qualification (G)

Nondestructive examination (NDE) procedures (G)

NDE personnel certification procedures (G)

Inspector certification (G)

Submit inspector certification and NDE personnel certification for record. (G)

SD-11 Closeout Submittals

Weld identifications (G)

1.5 QUALITY ASSURANCE

1.5.1 Welding Pressure Piping

Show location, length, and type of welds, and indicate postweld heat treatment and nondestructive testing as required.

1.5.2 Procedures

Develop and qualify procedures for welding metals included in the work. Do not start welding until welding procedures, welders, and welding operators have been qualified. Perform qualification testing by an approved testing laboratory, or by the Contractor if approved by the Contracting Officer in accordance with the qualified procedures. Notify the Contracting Officer at least 24 hours in advance of the time and place of the tests. When practicable, perform the qualification tests at or near the work site. Maintain current records of the test results obtained in welding procedure, welding operator/welder performance qualifications, and nondestructive examination (NDE) procedures. These records shall be readily available at the site for examination by the Contracting Officer. Qualify the procedures for making transition welds between different materials or between plates or pipes of different wall thicknesses. ANSI Piping requirements for branch connections may be used in lieu of detailed designs. Unless otherwise specified, the choice of welding process shall be the responsibility of the Contractor.

1.5.2.1 Previous Qualifications

Welding procedures, welders, and welding operators previously qualified by test may be accepted for the work without requalification provided that the following conditions are fulfilled:

- a. Copies of welding procedures, procedure qualification test records, and welder and welding operator performance qualification test records are submitted and approved in accordance with the paragraph entitled "Submittals."
- b. Testing was performed by an approved testing laboratory or technical consultant or by the Contractor's approved quality control organization.
- c. The welding procedures, welders, and welding operators were qualified in accordance with ASME BPVC SEC IX or AWS B2.1, AR-2 level; and base materials, filler materials, electrodes, equipment, and processes conformed to the applicable requirements of this specification.
- d. The requirements of paragraph entitled "Welder and Welding Operator Performance Qualification" for renewal of qualification were met, and records showing name of employer and period of employment using the process for which qualified are submitted as evidence of conformance.

1.5.2.2 Performance

The Contractor shall be responsible for the quality of joint preparation, welding, and examination. Clearly identify and record materials used in the welding operations. The examination and testing defined in this specification are minimum requirements. Provide additional examination and testing as necessary to achieve the quality required.

1.5.3 Welding Procedures Qualification

Qualification of the welding procedures for each group of materials to be welded is required as indicated in ASME BPVC SEC IX. Record in detail and qualify the "Welding Procedure Specifications" for every welding procedure proposed.

Qualification for each welding procedure shall conform to the requirements of ANSI Standards and to this specification. The welding procedures shall specify end preparation for welds, including cleaning, alignments, and root openings. Preheat, interpass temperature control, and postheat treatment of welds shall be as required by ANSI Piping documents, unless otherwise indicated or specified. Describe the type of backing rings or consumable inserts, if used, and, if they are to be removed, the removal process. Welding procedure qualifications shall be identified individually and referenced on the shop drawings or suitably keyed to the contract drawings.

1.5.4 Welder and Welding Operator Performance Qualification

Qualify each welder and welding operator assigned to work covered by this specification by performance tests using equipment, positions, procedures, base metals, and electrodes or bare filler wires from the same specification, classification, or group number that will be encountered on his assignment. Welders or welding operators who make acceptable procedure qualification tests will be considered performance-qualified for the welding procedure used. Determine performance qualification in accordance with ASME BPVC SEC IX, ANSI Piping Standards and as specified.

1.5.5 Renewal of Qualification

Re-qualification of a welder or welding operator shall be required under one or any combination of the following conditions:

- a. When a welder or welding operator has not used the specific welding process for a period of 3 months. The period may be extended to 6 months if the welder has been employed on another welding process.
- b. There is specific reason to question the welder's ability to make welds that will meet the requirements of the specifications.
- c. The welder or welding operator was qualified by an employer other than those firms performing work under this contract and a qualification test has not been taken within the preceding 12 months. Renewal of qualification under this condition need be made on

only a single test joint or pipe of any thickness, position, or material to reestablish qualification for any thickness, position, or material for which the welder or welding operator had qualified previously.

1.5.6 Qualification of Inspection and (NDE) Personnel

Qualification of Inspection and Nondestructive Examination (NDE) Personnel: Qualify inspection and nondestructive examination personnel in accordance with the following requirements:

1.5.6.1 Inspector Certification

Qualify welding inspectors in accordance with AWS QC1.

1.5.6.2 NDE Personnel Certification Procedures

Certify NDE personnel and establish a written procedure for the control and administration of NDE personnel training, examination, and certification. Base procedures on appropriate specific and general guidelines of training and experience recommended by ASNT RP SNT-TC-1A, Supplement C-Ultrasonic.

1.5.6.3 Welding Procedures and Qualifications

- a. Specifications and Test Results: Submit copies of the welding procedure specifications and procedure qualification test results for each type of welding required. Approval of any procedure does not relieve the Contractor of the responsibility for producing acceptable welds. Submit this information on the forms printed in ASME BPVC SEC IX or their equivalent.
- b. Certification: Before assigning welders or welding operators to the work, submit their names, together with certification that each individual is performance qualified as specified. Do not start welding work prior to procedure qualification. The certification shall state the type of welding and positions for which each is qualified, the code and procedure under which each is qualified, date qualified, and the firm and individual certifying the qualification tests.

1.5.7 Symbols

Conform to AWS A2.4.

1.5.7.1 Weld Identifications

Submit a list of the welders' names and symbol for each welder. To identify welds, submit written records indicating the location of welds made by each welder or welding operator.

1.5.8 Safety

Conform to AWS Z49.1, 29 CFR 1910-SUBPART Q, "Welding, Cutting, and Brazing," 29 CFR 1926-SUBPART J, "Welding and Cutting."

1.6 ENVIRONMENTAL

Do not perform welding when the quality of the completed weld could be impaired by the prevailing working or weather conditions. The Contracting Officer will determine when weather or working conditions are unsuitable for welding.

1.7 DELIVERY AND STORAGE

Deliver filler metals, electrodes, fluxes and other welding materials to the site in manufacturers' original packages and store in a dry space until used. Label and design packages properly to give maximum protection from moisture and to assure safe handling.

PART 2 PRODUCTS

2.1 WELDING MATERIALS

Comply with ASME BPVC SEC II-C. Welding equipment, electrodes, welding wire, and fluxes shall be capable of producing satisfactory welds when used by a qualified welder or welding operator using qualified welding procedures.

PART 3 EXECUTION

3.1 WELDING

Do not deviate from applicable codes, approved procedures and approved shop drawings without prior written approval from the Contracting Officer. Materials or components with welds made off the site will not be accepted if the welding does not conform to the requirements of this specification unless otherwise specified. Assign each welder or welding operator an identifying number, letter, or symbol that shall be used to identify his welds. Each welder or welding operator shall apply his mark adjacent to his weld using an approved rubber stamp or felt-tipped marker with permanent, weatherproof ink or other approved methods that do not deform the metal. For seam welds, place identification marks adjacent to the welds at one meter 3 foot intervals. Confine identification by die stamps or electric etchers to the weld reinforcing crown, preferably in the finished crater.

3.2 WELDING OPERATORS

Perform welding in accordance with qualified procedures using qualified welders and welding operators.

3.4 EXAMINATIONS AND TESTS

Visual and nondestructive examinations shall be performed by the Contractor to detect surface and internal discontinuities in completed welds. Employ the services of a qualified commercial inspection or testing laboratory or technical consultant approved by the Contracting Officer. Visually examine welds and utilize Ultrasonic examination which shall be required as indicated in Tables IV attached to this section. Random NDE testing applies to ASME B31.3 and ASME B31.4 piping unless specified otherwise. When examination and testing indicates defects in a weld joint, a qualified welder shall repair the weld in accordance with the paragraph entitled "Corrections and Repairs" of this section.

3.4.1 Random NDE Testing

When ultrasonic examination is required, test a minimum of 25 percent of the total length or number of piping welds. Randomly select the welds examined, but include an examination of welds made by each welding operator or welder. If random testing reveals that a weld fails to meet minimum quality requirements, examine an additional 25 percent of the welds in that same group. If the additional welds examined meet the quality requirements, the entire group of welds represented shall be accepted and the defective welds shall be repaired. If any of the additional welds examined also fail to meet the quality requirements, that entire group of welds shall be rejected. Remove and reweld rejected welds or examine rejected welds 100 percent and remove and reweld defects.

3.4.2 Visual Examination

Visually examine welds as follows:

- a. Before welding -- for compliance with requirements for joint preparation, placement of backing rings or consumable inserts, alignment and fit-up, and cleanliness.
- b. During welding -- for conformance to the qualified welding procedure.
- c. After welding -- for cracks, contour and finish, bead reinforcement, undercutting, overlap, and size of fillet welds.

3.4.3 Nondestructive Examination

NDE shall be in accordance with written procedures. Procedures for ultrasonic tests and methods shall conform to ASME BPVC SEC V. The approved procedure shall be demonstrated to the satisfaction of the Contracting Officer's QA personnel. In addition to the information required in ASME BPVC SEC V, the written procedures shall include:

- a. Timing of the nondestructive examination in relation to the welding operations.

- b. Safety precautions.

3.4.4 Examinations and Tests by the Government

Examinations and tests will conform to paragraphs "Visual Examination" and "Nondestructive Examination" of this section, except that destructive tests may be required also. When destructive tests are made, qualified welders or welding operators shall make repairs using welding procedures which will develop the full strength of the members cut. Welding shall be subject to examination and tests in the mill, shop, and field.

3.5 ACCEPTANCE STANDARDS

3.5.1 Visual

The following indications are unacceptable:

- a. Cracks--external surface.
- b. Undercut on surface which is greater than 1/32 inch deep or 25 percent for ASME B31.3 and 12.5 percent for ASME B31.4 and ASME B31.9 of the wall thickness, whichever is less, provided that the remaining wall thickness is not less than the minimum design thickness. For ASME B31.4 and in accordance with API Std 1104, undercuts over 1/64 inch through 1/32 inch or over 6 to 12.5 percent of the pipe wall thickness, whichever is smaller, shall not exceed 2 inches in a continuous weld length of 12 inches or 1/6 the length of the weld, whichever is smaller; and undercuts 0.40 mm 1/64 inch or 6 percent of the wall thickness, whichever is smaller, are acceptable regardless of length.
- c. Weld reinforcement:
 - (1) ASME B31.1, conform to Table I.

TABLE I
REINFORCEMENT OF GIRTH AND LONGITUDINAL BUTT WELDS

Thickness of Base Metal, inches	Maximum Thickness of Reinforcement for Design Temperature		
	Greater than 750oF		Less Than 350oF-750oF
	inch	inch	inch
Up to 1/8, incl.	1/16	3/32	3/16
Over 1/8 to 3/16, incl.	1/16	1/8	3/16
Over 3/16 to 1/2, incl.	1/16	5/32	3/16
Over 1/2 to 1, incl.	3/32	3/16	3/16
Over 1 to 2, incl.	1/8	1/4	1/4
Over 2	5/32 The greater of 1/4 in. or 1/8 times the width of the weld in inches.		

NOTES:

1. For double welded butt joints, this limitation on reinforcement given above shall apply separately to both inside and outside surfaces of the joint.
2. For single welded butt joints, the reinforcement limits given above shall apply to the outside surface of the joint only.
3. The thickness of weld reinforcement shall be based on the thickness of the thinner of the materials being joined.
4. The weld reinforcement thicknesses shall be determined from the higher of the abutting surfaces involved.
5. Weld reinforcement may be removed if so desired.

(2) ASME B31.3, conform to Table II.

TABLE II

Wall Thickness, Inches	Height, Inches
Less than or equal to $\frac{1}{4}$	Less than or equal to $\frac{1}{16}$
Greater than $\frac{1}{4}$, is less than or equal to $\frac{1}{2}$	Less than or equal to $\frac{1}{8}$
Greater than $\frac{1}{2}$, is less than or equal to 1	Less than or equal to $\frac{5}{32}$
Greater than 1	Less than or equal to $\frac{3}{16}$

NOTES:

1. Wall thickness is the nominal wall thickness of the thinner of components joined by butt weld.
2. Height: For "Normal Service" and "Severe Cyclic" conditions, use the listed value. For "Category D Fluid Service," use twice the listed value. Measure from surfaces of adjacent components. The lesser of the two measurements, in any plane through the weld, shall not exceed the applicable value at right. Weld metal shall merge smoothly into component surfaces.

(3) ASME B31.4, conform to Table I for under 350 degrees F.

(4) ASME B31.5, conform to Table III.

TABLE III

Pipe Wall Thickness, inches	Reinforcement Thickness, inches
$\frac{1}{4}$ and under	$\frac{1}{16}$
Over $\frac{1}{4}$ through $\frac{1}{2}$	$\frac{3}{32}$
Over $\frac{1}{2}$, through 1	$\frac{1}{8}$
Over 1	$\frac{3}{16}$

(5) ASME B31.9: Thickness of weld reinforcement shall not exceed $\frac{3}{16}$ inch.

d. Lack of fusion on surface.

e. Incomplete penetration (applies only when inside surface is readily accessible).

f. Convexity of fillet weld surface greater than 10 percent of longest leg plus 0.03 inch.

- g. Concavity in groove welds.
- h. Concavity in fillet welds greater than 1/16 inch.
- i. Fillet weld size less than indicated or greater than 1 1/4 times the minimum specified fillet leg length.

3.5.2 Magnetic Particle Examination

The following relevant indications are unacceptable:

- a. Any cracks and linear indications.
- b. Rounded indications with dimensions greater than 3/16 inch.
- c. Four or more rounded indications in a line separated by 1/16 inch or less edge-to-edge.
- d. Ten or more rounded indications in any 6 square inches of surface, with the major dimension of this area not to exceed 6 inches, with the area taken in the most unfavorable location relative to the indications being evaluated.

3.5.3 Liquid Penetrant Examination

Indications whose major dimensions are greater than 1/16 inch shall be considered relevant. The following relevant indications are unacceptable:

- a. Any cracks or linear indications.
- b. Rounded indications with dimensions greater than 3/16 inch.
- c. Four or more rounded indications in a line separated by 1/16 inch or less edge-to-edge.
- d. Ten or more rounded indications in any 6 square inches of surface, with the major dimension of this area not to exceed 6 inches, with the area taken in the most unfavorable location relative to the indications being evaluated.

3.5.4 Radiography

Welds that are shown by radiography to have any of the following discontinuities are unacceptable:

- a. Any type of crack or zone of incomplete fusion or penetration.
- b. Any other elongated indication which has a length greater than:

(1) 1/4 inch for t up to 3/4 inch, inclusive;

(2) $\frac{1}{3} t$ for t from $\frac{3}{4}$ inch to $2 \frac{1}{4}$ inches, inclusive;

(3) $\frac{3}{4}$ inch for t over $2 \frac{1}{4}$ inches where t is the thickness of the thinner portion of the weld.

("t" pertains to the thickness of the weld being examined. If a weld joins two members having different thickness at the weld, "t" is the thinner of these two thicknesses.)

c. Any group of indications in line that have an aggregate length greater than t in a length of $12t$, except where the distance between the successive indications exceeds $6L$ where L is the longest indication in the group.

d. Porosity in excess of that shown acceptable in Appendix A-250, Acceptance Standard for Radiographically Determined Rounded Indications in Welds, ASME BPVC SEC I.

3.5.5 Ultrasonic Examination

Permitted for ASME B31.3 and ASME B31.4 piping only. Linear type discontinuities are unacceptable if the amplitude exceeds the reference level and discontinuities have lengths which exceed the following:

a. $\frac{1}{4}$ inch for t up to $\frac{3}{4}$ inch

b. $\frac{1}{3} t$ for t from $\frac{3}{4}$ inch to $2 \frac{1}{4}$ inches

c. $\frac{3}{4}$ inch for t over $2 \frac{1}{4}$ inches

("t" is the thickness of the weld being examined. If the weld joins two members having different thickness at the weld, "t" is the thinner of these two thicknesses. Discontinuities are interpreted to be cracks, lack of fusion, and incomplete penetration are unacceptable regardless of length.)

3.6 CORRECTIONS AND REPAIRS

Remove defects and replace welds as specified in ANSI Piping Standards, unless otherwise specified. Repair defects discovered between weld passes before additional weld material is deposited. Wherever a defect is removed, and repair by welding is not required, the affected area shall be blended into the surrounding surface eliminating sharp notches, crevices, or corners. After defect removal is complete and before rewelding, reexamine the area by the same test methods which first revealed the defect to ensure that the defect has been eliminated. After rewelding, reexamine the repaired area by the same test methods originally used for that area. For repairs to base material, the minimum examination shall be the same as required for butt welds. Indication of a defect shall be regarded as a defect unless reevaluation by NDE or by surface conditioning shows that no unacceptable indications are present. The use of foreign material to mask, fill in, seal, or disguise welding defects will not be permitted.

TABLE IV - EXAMINATIONS AND TESTS FOR VARIOUS MATERIALS AND SERVICES

Examinations or Tests Required

Material or Application	Visual	Radiographic	Magnetic Particle or Liquid Penetrant	Ultrasonic
High-alloy austenitic or nickel steels or nickel alloys for cryogenic service and vacuum service				
a. Tack welds	Yes	No	No	No
b. Root passes	Yes	No	Yes	No
c. Intermediate passes	Yes	No	No	No
d. Completed weld	Yes	100 percent	Yes(PT only)	Yes for
		for NPS over wall		
		1 1/4 inches1/2 inch and thickness		
		60 percent over		
		for NPS 1 1/4 inches and less		
High-alloy austenitic or nickel steels or nickel alloys for other than cryogenic or vacuum service				
a. Tack welds	Yes	No	No	No
b. Root passes	Yes	No	Yes	No
c. Intermediate passes	Yes	No	No	No
d. Completed weld	Yes(100 %)	Yes(PT only)	No	Yes
Stainless steel to carbon steel				
a. Completed weld	Yes	Yes	Yes(PT only)	No
Carbon steel piping systems				
a. Tack welds	Yes	No	No	No
b. Root passes	Yes	No	No, Yes MT	No
c. Intermediate passes	Yes	No	No	No
d. Completed weld	Yes (100%)	No, Yes MT	No	Random

SECTION 15720N

AIR HANDLING UNITS

09/99

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

AIR-CONDITIONING AND REFRIGERATION INSTITUTE (ARI)

ARI 410(2001; Addendum 2002) Forced-Circulation Air-Cooling and Air-Heating Coils

ARI 430(1999) Central-Station Air-Handling Units

ASTM INTERNATIONAL (ASTM)

ASTM A 123/A 123M(2002) Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products

ASTM A 167(2004) Stainless and Heat-Resisting Chromium-Nickel Steel Plate, Sheet, and Strip

ASTM A 653/A 653M(2004a) Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process

ASTM B 117(2002) Operating Salt Spray (Fog) Apparatus

ASTM D 1654(1992; R 2000) Evaluation of Painted or Coated Specimens Subjected to Corrosive Environments

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

NFPA 70(2005) National Electrical Code

NFPA 90A(2002) Installation of Air Conditioning and Ventilating Systems

SHEET METAL AND AIR CONDITIONING CONTRACTORS' NATIONAL ASSOCIATION (SMACNA)

SMACNA HVAC Duct Const Stds(1995, 2nd Ed) HVAC Duct Construction Standards - Metal and Flexible

1.2 RELATED REQUIREMENTS

Section 15050N BASIC MECHANICAL MATERIALS AND METHODS, applies to this section with the additions and modifications specified herein.

1.3 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. The following shall be submitted in accordance with Section 01000 SUBMITTAL PROCEDURES:

SD-03 Product Data

Cooling Coils (G)

SD-06 Test Reports

Cooling Coil Performance (G)

SD-10 Operation and Maintenance Data (must comply with Section (01000) (G)

Cooling Coil

1.4 TESTING FOR CORROSION PROTECTION

Protect equipment with a corrosion-inhibiting coating or paint system that has proved capable of satisfactorily withstanding corrosion in accordance with ASTM B 117. Test 125 hours for equipment installed indoors and 500 hours for equipment installed outdoors or subjected to a marine atmosphere. Each specimen shall have a standard scratch as defined in ASTM D 1654.

1.4.1 Corrosion Criteria

Upon completion of exposure, evaluate coating or painting in accordance with ASTM D 1654. Coat or paint shall show no indication of deterioration, loss of adhesion, or indication of rust or corrosion extending further than 1/8 inch on either side of original scratch.

1.4.2 Thickness of Coating

Thickness of coating or paint system on the actual equipment shall be identical to that on the test specimens with respect to materials, conditions of application, and dry film thickness.

PART 2 PRODUCTS

2.2 CENTRAL STATION AIR HANDLERS

2.2.1 Casings (for Repair)

Construct casings of steel, galvanized steel, or aluminum on channel base and drain pan coated externally with manufacturers standard paint finish. Insulate casings with manufacturer's standard materials. Finish with seal joints bearing AMCA Certified Ratings Seal in accordance with AMCA 500-D.

2.2.8 Cooling Sections

2.2.8.1 Coils

Provide removable coils per ARI 410 with access to both sides. Coils must have a minimum rated working pressure of 200 PSIG. Enclose cooling coils in a common or individual casing with headers and return bends fully contained within casing. Cooling coils shall have drain pans with piping connections to remove condensate. Seal coils to casing to prevent leakage of air around coils.

2.2.8.3 Eliminators

Equip each cooling coil having an air velocity of over 400 fpm through the net face area with moisture eliminators, unless the coil manufacturer guarantees, over the signature of a responsible company official, that no moisture will be carried beyond the drip pans under actual conditions of operation. Construct of minimum 24 gage copper or stainless steel, removable through the nearest access door in the casing or ductwork. Eliminators shall have not less than two bends at 45 degrees and shall be spaced not more than 2 1/2 inches center-to-center on face. Each bend shall have an integrally formed hook as indicated in the SMACNA HVAC Duct Const. Stds.

2.2.8.4 Drip Pans

Provide each cooling coil section in both field-and-factory assembled casings with a stainless or galvanized steel drip pan not less than 18 gage with drain connections. Drip pans shall collect, confine, and dispose of all condensate from cooling coils and attachments, including headers, return bends, distributors, and uninsulated pipe and fittings. Where individual eliminator blades are in section (not in one piece from top to bottom of coil bank), provide auxiliary drip troughs at bottom of each section with drains to drip pans. Insulate drip pans with water impervious insulation of sufficient thickness to prevent condensate formation on the exterior at ambient conditions to be encountered.

PART 3 EXECUTION

3.1 PREPARATION

Provide storage for equipment and materials at the project site. Parts shall be readily accessible for inspection, repair, and renewal. Protect materials and equipment from weather.

3.2 INSTALLATION

Install air distribution equipment as indicated and in accordance with the manufacturer's instructions. Provide clearance for inspection, repair, replacement, and service.

3.3 FIELD QUALITY CONTROL

Schedule and administer specified tests. Provide personnel, instruments, and equipment for such tests. Correct defects and repeat the respective inspection and tests. Give the Contracting Officer ample notice of the dates and times scheduled for tests and trial operations. Conduct inspection and testing in the presence of the Contracting Officer.

3.3.1 Inspection

Prior to initial operation, inspect equipment installation for conformance with specifications.

3.3.2 Preliminary Tests

For each item of air handling and distribution equipment and its components, perform an operational test for a minimum period of 4 hours.

3.4 SCHEDULE

See scope/project overview

ATTACHMENTS

GENERAL DECISION: **DC20030003** 07/22/2005 DC3

Date: July 22, 2005

General Decision Number: **DC20030003** 07/22/2005

Superseded General Decision Number: DC020003

State: District of Columbia

Construction Type: Building

County: District of Columbia Statewide.

BUILDING CONSTRUCTION PROJECTS (Does not include single family homes and apartments up to and including 4 stories)

Modification Number	Publication Date
0	06/13/2003
1	10/03/2003
2	10/31/2003
3	01/09/2004
4	03/19/2004
5	04/02/2004
6	05/14/2004
7	06/11/2004
8	06/18/2004
9	06/25/2004
10	07/02/2004
11	07/09/2004
12	07/16/2004
13	08/13/2004
14	08/20/2004
15	09/17/2004
16	09/24/2004
17	10/29/2004
18	11/12/2004
19	01/21/2005
20	04/01/2005
21	05/06/2005
22	06/03/2005
23	06/10/2005
24	06/24/2005
25	07/01/2005
26	07/08/2005
27	07/22/2005

ASBE0024-001 03/01/2005

Rates

Fringes

Asbestos Worker/Heat and
Frost Insulator

Includes application of
all insulating materials,
protective coverings,
coatings and finishes to
all types of mechanical
systems. Also the
application of

firestopping material for wall openings and penetrations in walls, floors, ceilings and curtain walls.....	\$ 25.10	11.91
--	----------	-------

ASBE0024-002 03/01/2005

	Rates	Fringes
Hazardous Material Handler Includes preparation, wetting, stripping, removal, scrapping, vacuuming, bagging and disposing of all insulation materials, whether they contain asbestos or not, from mechanical systems.....	\$ 11.93	5.85

BRDC0001-001 05/01/2005

	Rates	Fringes
Bricklayer.....	\$ 25.00	6.09

CARP0132-006 05/01/2005

	Rates	Fringes
Carpenter (Including Drywall Hanging).....	\$ 22.89	5.39
Piledriver.....	\$ 21.47	5.81

ELEC0026-003 09/02/2002

	Rates	Fringes
Communication Technician.....	\$ 20.60	5.09

SCOPE OF WORK: Includes low voltage construction, installation, maintenance and removal of teledata facilities (voice, data and video) including outside plant, telephone and data inside wire, interconnect, terminal equipment, central offices, PABX, fiber optic cable and equipment, railroad communications, micro waves, VSAT, bypass, CATV, WAN (Wide area networks), LAN (Local area networks) and ISDN (Integrated systems digital network).

WORK EXCLUDED: The installation of computer systems in industrial applications such as assembly lines, robotics and computer controller manufacturing systems. The installation of conduit and/or raceways shall be installed by Inside Wiremen. On sites where there is no Inside Wireman employed, the Teledata Technician may install raceway or conduit not greater than 10 feet. Fire alarm work is excluded on all new construction sites or wherever the fire alarm system is installed in conduit. All HVAC control work.

 ELEC0026-016 06/06/2005

	Rates	Fringes
Electrician (Excluding Communication-Low Voltage Wiring).....	\$ 30.15	9.90+3%+a

a. PAID HOLIDAYS: New Year's Day, Martin Luther King Jr.'s Birthday, Inauguration Day, Memorial Day, Fourth of July, Labor Day, Veterans Day, Thanksgiving Day, the day after Thanksgiving and Christmas Day or days designated as legal holidays by the Federal Government.

 ENGI0077-009 05/01/2004

	Rates	Fringes
Power equipment operators:		
Boom Trucks.....	\$ 23.57	5.62+a
Cranes (35 tons and above).. <td>24.74</td> <td>5.62+a</td>	24.74	5.62+a
Cranes (under 35 tons).....	\$ 24.28	5.62+a
Forklifts.....	\$ 17.00	5.62+a
Piledrivers.....	\$ 24.28	5.62+a

a. PAID HOLIDAYS:

New Years Day, Inaugural Day, Decoration Day, Independence Day, Labor Day, Martin Luther King's Birthday, Veterans Day, Thanksgiving Day, Friday after Thanksgiving and Christmas Day.

b. PREMIUM PAY:

Tower cranes and cranes 100-ton and over to receive \$1.00 per hour premium over Group One.

 IRON0005-001 06/01/2003

	Rates	Fringes
Ironworkers:		
Structural, Ornamental and Chain Link Fence.....	\$ 24.00	8.975

 IRON0201-003 05/01/2005

	Rates	Fringes
Ironworker, Reinforcing	\$ 24.45	9.73

 * LAB00074-001 06/01/2005

	Rates	Fringes
Laborer: Skilled.....	\$ 18.03	3.12

FOOTNOTE: Potmen, power tool operator, small machine operator, concrete labor including concrete preparation, signalmen, laser beam operator, waterproofer, open caisson, test pit, underpinning, pier hole and ditches, ladders and

all work associated with lagging that is not expressly stated, strippers, operator of hand derricks, vibrator operators, pipelayers, or tile layers, operators of jackhammers, paving breakers, spaders or any machine that does the same general type of work, scaffold builders, operators of towmasters, scootcretes, buggymobiles and other machines of similar character, operators of tampers and rammers, and other machines that do the same general type of work, whether powered by air, electric or gasoline builders of trestle scaffolds over one tier high and sand blasters, power and chain saw operators used in clearing, installers of well points, wagon drill operators, acetylene burners and licensed powdermen.

 * LAB00456-012 06/01/2005

	Rates	Fringes
Laborers:		
Mason Tenders (Brick).....	\$ 13.75	3.12
Mortarmen, Scaffold Builders	\$ 14.45	3.12

 MARB0002-002 05/01/2005

	Rates	Fringes
Marble & Stone Mason.....	\$ 28.72	10.55
INCLUDES pointing, caulking and cleaning of All types of masonry, brick, stone and cement structures; EXCEPT pointing, caulking and cleaning of exisiting masonry, brick, stone and cement (restoration work)		

 MARB0003-001 05/01/2005

	Rates	Fringes
Mosaic & Terrazzo Worker, Tile Layer.....	\$ 23.17	8.53

 MARB0003-004 05/01/2005

	Rates	Fringes
Marble, Tile & Terrazzo Finisher.....	\$ 18.72	7.62

 * PAIN0051-004 06/01/2005

	Rates	Fringes
Glazier		
Contracts \$2,000,000 and under.....	\$ 21.87	7.21
Contracts over \$2,000,000...	\$ 23.09	7.21

 * PAIN0051-010 06/01/2005

	Rates	Fringes
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Painters:

Brush, Roller, Spray and
Drywall Finishers.....\$ 21.31 7.06

PLAS0891-003 05/01/2004

	Rates	Fringes
Cement Mason.....	\$ 23.73	4.945

PLUM0005-007 08/01/2004

	Rates	Fringes
Plumber		
Apartment Buildings over 4 stories (except hotels).....	\$ 19.03	7.19+a
ALL Other Work.....	\$ 29.52	10.89+a

a. PAID HOLIDAYS: Labor Day, Veterans' Day, Thanksgiving Day
and the day after Thanksgiving, Christmas Day, New Year's
Day, Martin Luther King's Birthday, Memorial Day and the
Fourth of July.

PLUM0602-006 09/01/2004

	Rates	Fringes
Steamfitter, Refrigeration & Air Conditioning Mechanic (Including HVAC Pipe Work).....	\$ 29.17	11.22+a

a. PAID HOLIDAYS:
New Year's Day, Martin Luther King's Birthday, Memorial Day,
Independence Day, Labor Day, Veterans Day, Thanksgiving Day
and the day after Thanksgiving Day and Christmas Day.

SFDC0669-001 01/01/2005

	Rates	Fringes
Sprinkler Fitter.....	\$ 25.05	11.00

* SHEE0100-002 07/01/2005

	Rates	Fringes
Sheet Metal Worker (Including HVAC Duct Work).....	\$ 29.18	10.51

SUDC2000-001 04/12/2000

	Rates	Fringes
Laborer, Unskilled.....	\$ 11.83	2.23
Pointer, caulker and cleaner INCLUDES pointing, caulking and cleaning of existing masonry, brick, stone and cement		

structures (restoration
work); EXCLUDES pointing,
caulking and cleaning of
new or replacement
masonry, brick, stone and
cement.....\$ 20.00

WELDERS - Receive rate prescribed for craft performing
operation to which welding is incidental.

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Unlisted classifications needed for work not included within
the scope of the classifications listed may be added after
award only as provided in the labor standards contract clauses
(29CFR 5.5 (a) (1) (ii)).

In the listing above, the "SU" designation means that rates
listed under the identifier do not reflect collectively
bargained wage and fringe benefit rates. Other designations
indicate unions whose rates have been determined to be
prevailing.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can
be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on
a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests
for summaries of surveys, should be with the Wage and Hour
Regional Office for the area in which the survey was conducted
because those Regional Offices have responsibility for the
Davis-Bacon survey program. If the response from this initial
contact is not satisfactory, then the process described in 2.)
and 3.) should be followed.

With regard to any other matter not yet ripe for the formal
process described here, initial contact should be with the
Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an
interested party (those affected by the action) can request
review and reconsideration from the Wage and Hour Administrator
(See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION

BID BOND <i>(See instruction on reverse)</i>	DATE BOND EXECUTED <i>(Must not be later than bid opening date)</i>	OMB NO.:9000-0045
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Public reporting burden for this collection of information is estimated to average 25 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the FAR Secretariat (MVR), Federal Acquisition Policy Division, GSA, Washington, DC 20405.

PRINCIPAL *(Legal name and business address)*

TYPE OF ORGANIZATION ("X" one)

☐ INDIVIDUAL ☐ PARTNERSHIP
☐ JOINT VENTURE ☐ CORPORATION

STATE OF INCORPORATION

SURETY(IES) *(Name and business address)*

PENAL SUM OF BOND					BID IDENTIFICATION	
PERCENT OF BID PRICE	AMOUNT NOT TO EXCEED				BID DATE	INVITATION NO.
	MILLION(S)	THOUSAND(S)	HUNDRED(S)	CENTS		
					FOR <i>(Construction, Supplies, or Services)</i>	

OBLIGATION:

We, the Principal and Surety(ies) are firmly bound to the United States of America (hereinafter called the Government) in the above penal sum. For payment of the penal sum, we bind ourselves, our heirs, executors, administrators, and successors, jointly and severally. However, where the Sureties are corporations acting as co-sureties, we, the Sureties, bind ourselves in such sum "jointly and severally" as well as "severally" only for the purpose of allowing a joint action or actions against any or all of us. For all other purposes, each Surety binds itself, jointly and severally with the Principal, for the payment of the sum shown opposite the name of the Surety. If no limit of liability is indicated, the limit of liability is the full amount of the penal sum.

CONDITIONS:

The Principal has submitted the bid identified above.

THEREFORE:

The above obligation is void if the Principal - (a) upon acceptance by the Government of the bid identified above, within the period specified therein for acceptance (sixty (60) days if no period is specified), executes the further contractual documents and gives the bond(s) required by the terms of the bid as accepted within the time specified (ten (10) days if no period is specified) after receipt of the forms by the principal; or (b) in the event of failure to execute such further contractual documents and give such bonds, pays the Government for any cost of procuring the work which exceeds the amount of the bid.

Each Surety executing this instrument agrees that its obligation is not impaired by any extension(s) of the time for acceptance of the bid that the Principal may grant to the Government. Notice to the surety(ies) of extension(s) are waived. However, waiver of the notice applies only to extensions aggregating not more than sixty (60) calendar days in addition to the period originally allowed for acceptance of the bid.

WITNESS:

The Principal and Surety(ies) executed this bid bond and affixed their seals on the above date.

PRINCIPAL					
SIGNATURE(S)	1.	2.	3.	Corporate Seal	
		<i>(Seal)</i>	<i>(Seal)</i>		
NAME(S) & TITLE(S) <i>(Typed)</i>	1.	2.	3.		
INDIVIDUAL SURETY(IES)					
SIGNATURE(S)	1.	2.	<i>(Seal)</i>		
		<i>(Seal)</i>			
NAME(S) <i>(Typed)</i>	1.	2.	<i>(Seal)</i>		
CORPORATE SURETY(IES)					
SURETY A	NAME & ADDRESS			STATE OF INC.	LIABILITY LIMIT (\$)
	SIGNATURE(S)	1.	2.	Corporate Seal	
	NAME(S) & TITLE(S) <i>(Typed)</i>	1.	2.		

AUTHORIZED FOR LOCAL REPRODUCTION
Previous edition is usable

STANDARD FORM 24 (REV. 10-98)
Prescribed by GSA - FAR (48 CFR) 53.228(a)

SURETY B	NAME & ADDRESS		STATE OF INC.	LIABILITY LIMIT (\$)	Corporate Seal
	SIGNATURE(S)	1.	2.		
	NAME(S) & TITLE(S) (Typed)	1.	2.		
SURETY C	NAME & ADDRESS		STATE OF INC.	LIABILITY LIMIT (\$)	Corporate Seal
	SIGNATURE(S)	1.	2.		
	NAME(S) & TITLE(S) (Typed)	1.	2.		
SURETY D	NAME & ADDRESS		STATE OF INC.	LIABILITY LIMIT (\$)	Corporate Seal
	SIGNATURE(S)	1.	2.		
	NAME(S) & TITLE(S) (Typed)	1.	2.		
SURETY E	NAME & ADDRESS		STATE OF INC.	LIABILITY LIMIT (\$)	Corporate Seal
	SIGNATURE(S)	1.	2.		
	NAME(S) & TITLE(S) (Typed)	1.	2.		
SURETY F	NAME & ADDRESS		STATE OF INC.	LIABILITY LIMIT (\$)	Corporate Seal
	SIGNATURE(S)	1.	2.		
	NAME(S) & TITLE(S) (Typed)	1.	2.		
SURETY G	NAME & ADDRESS		STATE OF INC.	LIABILITY LIMIT (\$)	Corporate Seal
	SIGNATURE(S)	1.	2.		
	NAME(S) & TITLE(S) (Typed)	1.	2.		

INSTRUCTIONS

1. This form is authorized for use when a bid guaranty is required. Any deviation from this form will require the written approval of the Administrator of General Services.
2. Insert the full legal name and business address of the Principal in the space designated "Principal" on the face of the form. An authorized person shall sign the bond. Any person signing in a representative capacity (e.g., an attorney-in-fact) must furnish evidence of authority if that representative is not a member of the firm, partnership, or joint venture, or an officer of the corporation involved.
3. The bond may express penal sum as a percentage of the bid price. In these cases, the bond may state a maximum dollar limitation (e.g., 20% of the bid price but the amount not to exceed _____ dollars).
4. (a) Corporations executing the bond as sureties must appear on the Department of the Treasury's list of approved sureties and must act within the limitation listed therein. Where more than one corporate surety is involved, their names and addresses shall appear in the spaces (Surety A, Surety B, etc.) headed "CORPORATE SURETY(IES)." In the space designated "SURETY(IES)" on the face of the form, insert only the letter identification of the sureties.
(b) Where individual sureties are involved, a completed Affidavit of Individual surety (Standard Form 28), for each individual surety, shall accompany the bond. The Government may require the surety to furnish additional substantiating information concerning its financial capability.
5. Corporations executing the bond shall affix their corporate seals. Individuals shall execute the bond opposite the word "Corporate Seal"; and shall affix an adhesive seal if executed in Maine, New Hampshire, or any other jurisdiction requiring adhesive seals.
6. Type the name and title of each person signing this bond in the space provided.
7. In its application to negotiated contracts, the terms "bid" and "bidder" shall include "proposal" and "offeror."

**** NOTICE ****

TO: ALL VENDORS/CONTRACTORS/CONSULTANTS

FROM: THE OFFICE OF THE ARCHITECT OF THE CAPITOL

Due to requirements set forth in the DEBT COLLECTION IMPROVEMENT ACT OF 1996 (PUBLIC LAW 104-134), all payments made to vendors, contractors and consultants doing business with the Federal Government must be made by Electronic Funds Transfer (EFT) directly to your financial institution. If you are currently enrolled under EFT with the Architect of the Capitol, no further action is necessary other than to report changes.

EFT payments are cost effective, enabling prompt, convenient and reliable payments directly to a designated bank account.

The Architect of the Capitol, in making EFT payments, supplies the financial institution with identifying information (ie. invoice number), which accompanies each transaction. The financial institution in turn can supply this information to the account holder.

Therefore, to accomplish the mandate of P. L. 104-134, it is necessary that the attached sheet; PAYMENT INFORMATION FORM ACH VENDOR PAYMENT SYSTEM be completed and returned with your bid or offer as set forth in Section G of the solicitation.

**PAYMENT INFORMATION FORM
ACH VENDOR PAYMENT SYSTEM**

This form is used for ACH payments with an addendum record that carries payment-related information. Recipients of these payments should bring this information to the attention of their financial institution when presenting this form for completion. The information will be transmitted in the CCD+ format to the designated financial institution.

Debt Collection Improvement Act of 1996

PAPERWORK REDUCTION ACT STATEMENT

The information being collected on this form is pursuant to Public Law 104-134, which mandated Electronic Funds Transfer for recipients of all federal payments (excluding IRS tax refunds) beginning July 24, 1996. This information will be needed by the Treasury Department to transmit payments and related data.

COMPANY INFORMATION

NAME:

ADDRESS:

CONTRACT NUMBER: **AOC-**_____

TAXPAYER IDENTIFICATION NUMBER (TIN):

CONTACT PERSON NAME:

TELEPHONE NUMBER: ()

FAX NUMBER: ()

AGENCY INFORMATION

NAME: ARCHITECT OF THE CAPITOL - FORD HOUSE OFFICE BUILDING

ADDRESS: ACCOUNTING DIVISION, ROOM H2-205

WASHINGTON, D.C. 20024

FAX NUMBER: (202) 225-7321

CONTACT PERSON NAME: MR. JAMES JARBOE

TELEPHONE NUMBER: (202) 226-2552

FINANCIAL INSTITUTION INFORMATION

BANK NAME:

BRANCH LOCATION: (If applicable)

CONTACT NAME:

TELEPHONE NUMBER: ()

NINE DIGIT ROUTING TRANSIT NUMBER: _ _ _ _ _

DEPOSITOR ACCOUNT NUMBER:

TYPE OF ACCOUNT: _ _ _ _ CHECKING _ _ _ _ SAVINGS _ _ _ _ LOCKBOX

SIGNATURE AND TITLE OF REPRESENTATIVE:

TELEPHONE NUMBER:



CP-491
(4-96)

UNITED STATES CAPITOL POLICE
WASHINGTON, D.C. 20510-7218

For AOC use only:

ID required _____

No ID _____

REQUEST FOR CHECK OF CRIMINAL HISTORY RECORDS

Please report with: (1) a form of valid photo identification and (2) this form; to the Identification Section,
Room 103B, U.S. Capitol Police Headquarters, 119 D Street, N.E.



1 Name (Last, First, Middle)

Address:

Street & No.

City & State

Zip

Tele:

2 Other names ever used (e.g. maiden name, nickname, etc.)

3 Date of Birth (Month, Day, Year)

4 Birthplace (City and State or Country)

5 Social Security Number

6 Sex

☐ Male

☐ Female

7 Race

8 Height

9 Weight

10 Eye Color

11 Hair Color

SIGNATURE AND RELEASE OF INFORMATION:

READ THE FOLLOWING CAREFULLY BEFORE YOU SIGN:

- I understand that the information provided above will be used to check the criminal history records of the Federal Bureau of Investigation (FBI).
- I consent to the use of the information provided above in making a security determination concerning me.
- I certify that, to the best of my knowledge and belief, all the information provided above is true, correct, and complete, and made in good faith.

12 Signature

13 Date Signed (Month, Day, Year)

AUTHORIZED REQUESTER**14 Name/Employing Office**
_____**15 Title**
_____**16 Telephone number**
_____**17 Date of Request**
_____**SIGNATURE AND REQUEST:**

I request that the applicant/employee indicated above be fingerprinted by the United States Capitol Police and that these fingerprints be submitted for a check of the criminal history records of the Federal Bureau of Investigation (FBI). This check will be used in making a security determination concerning this applicant/employee.

18 Signature
_____**19 Date Signed (Month, Day, Year)**
_____**IDENTIFICATION SECTION****20 Individual Receiving Request**
_____**21 Date/Time Received**
_____**22 IS #:**
